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ABSTRACT

The purpose of this report is to draw on the American experience as a guide to policies, research, and experimentation in other countries who belong to the Organization for Economic Co-operation and Development. This review of compensatory education in the United States tries to give some impression of the changing social conditions that were related to such a movement, of the variety of ideas and theories that lay behind the development of particular educational approaches, and of the range of programmes and projects that has been set up. The projects described represent only a small fraction of the schemes tried out, but they are in general either those that are most well known, or those which have embodied innovation of particular interest. We distinguished three broad strategies of change. We looked first at changes within the school, particularly the development of new curricula, and the extension of formal schooling to include younger age groups. Secondly, we examined change in the relationship between the school and its setting; and thirdly, we outlined projects that had adopted a very different conception of the relationship between school and community than that traditionally held. The aim of this type of programme was to integrate schools racially or socially where the communities themselves were not integrated. Within these three broad strategies, we have traced the developing pattern of ideas. (Author/JM)

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Centre for Educational Research and Innovation (CERI)

STRATEGIES OF COMPENSATION:

A REVIEW OF EDUCATIONAL PROJECTS FOR THE DISADVANTAGED IN THE UNITED STATES

by Alan Little and George Smith

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1971

The Organisation for Economic Co-operation and Development (OECD), which was set up under a Convention signed in Paris on 14th December, 1960, provides that the OECD shall promote policies designed :

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Many of the ideas in the study are derived from those who have written on the education of the disadvantaged, from those to whom we talked on project visits, and those who spoke at the New York Conference Where possible we have tried to acknowledge the authors ; but often ideas have developed in the course of debate, in such a way that it is impossible to attribute them to particular people. We can only acknowledge our debt to large numbers of people. Those who participated in the conference at the Ford Foundation are listed in the appendix, and there is also a list of the visits that were made.

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CONTENTS

PREFACE 9

Chapter I

INTRODUCTION 11

Chapter II

THE DEVELOPMENT OF COMPENSATORY EDUCATION 17
A. Social Problems 18
B. Objectives in Compensatory Education 29
C. Concepts 36

Chapter III

CHANGING THE LEARNING SITUATION 45
A. Age Group 45
B. Programmes 49
C. The Teaching Force 79

Chapter IV

CHANGING THE RELATIONSHIPS BETWEEN THE SCHOOL AND ITS SETTING 85
A. Links with the Home 87
B. School and Community 94
C. Integration Programmes 101
D. New Institutions 106

Chapter V

EVALUATION AND RESEARCH 113
A. Evaluation Research 113
B. New Research Institutions 121
C. Further Research 122

Chapter VI

SUMMARY AND CONCLUSIONS 127

APPENDICES

I. Participants at the New York Conference 139
II. List of visits to educational projects 143

Bibliography 145

PREFACE

All societies in general seek to expand educational opportunities as a means of overcoming social and economic inequalities. The underlying social theory is that if all children can be given equality of access to education, then at least they may compete on equal terms for privileged positions in society. This aspiration encounters an unfortunate reality: all children cannot benefit equally from exposure to education because of genetic and environmental differences. Present scientific knowledge does not allow us to unravel the complex relationships between these two factors. But it is quite clear that, as education becomes the key to status and position in society, parents naturally seek the best possible education for their children. There is in consequence a 'built-in' tendency for education to be used by the family as a means of maintaining existing social advantages. And it is perfectly obvious that the existing elites have an advantage in so doing over under-privileged groups, whether social, racial or ethnic. Therein lies a fundamental dilemma of our modern societies, and a deep and perplexing problem for educational policy.

All OECD countries share this problem. In the United States, however, it has become particularly acute—not only because of the deep faith of that country in education as a key to social and individual equality, but also because sharp racial and ethnic differences in opportunity have brought the problem to the forefront earlier than in other countries. It is typical of American society that recognition of the problem has brought a burgeoning of programmes and projects to solve it. Indeed, research and experimentation in compensatory education has become a classic case of the use of social research and development to seek answers to an urgent social problem.

The United States was the first to mount a massive federal programme recognising the importance of education for socio-economically disadvantaged children. This concern is now rapidly spreading in other OECD countries. The purpose of the following Report by Messrs Smith and Little is to draw on the American experience as a guide to policies, research and experimentation in other Member countries.

It is not the purpose of this brief introduction to evaluate the conclusions of the authors. But the diversity and complexity of the problems treated leads to an obvious question: was the concept of 'compensatory education' too simple to come to grips with such a fundamental social issue? It had the advantage of enabling special programmes and measures to be launched for disadvantaged groups, but did it not tempt a blind eye to the reality in placing the responsibility entirely on the educational system? Is it not a social, economic and political problem as well as an educational one? In any event, the short-lived effects of many compensatory programmes suggest that the one without the other is bound to be forlorn in the long run.

However, the encouraging feature of the compensatory programmes is precisely that they point to the need for general changes in the schools and their relationships to society. Whilst few could today say what a good compensatory programme is, the research and experimentation described in this Report has produced a wealth of new general principles about the educational system in its entirety, and not only in the United States. The importance of fostering cognitive development in the early years is now widely recognised and is leading to action in many places. Recognition of the role of community and parental influences on educational achievement is leading to many new approaches to new schools in a variety of OECD countries. The fact that children learn from one another as well as from the teacher is a general insight of widespread importance.

But general principles are not enough. They can only find their effect in the schools if they can be translated into new curricula, teaching methods and forms of organisation. What emerges most forcefully from the Report is the patient and massive endeavour in the United States to build up ' hard ' knowledge on how children, and in particular disadvantaged children, learn and what educational programmes can promote such changes. The scale of the resources involved to tackle one, even if major, problem in the United States makes clear the necessity for sharing such efforts between the OECD countries in the future. It is to this task that CERI seeks to make a contribution.

In issuing this Report under the personal responsibility of the authors, the OECD wishes to thank the many institutions and individuals in the United States that have been willing to make their results and their experience available to the study.

J. R. GASS

Director
Centre for Educational Research and Innovation.

Chapter I

INTRODUCTION

A number of European countries have, in the last few years, begun to plan and mount programmes of 'compensatory education' for socially disadvantaged groups, both as small-scale research projects, and on a national basis. This expansion in the provision of special or extra educational facilities for the socially underprivileged has in part been influenced by similar work in the United States, where such programmes have been in extensive operation for several years. Phrases such as 'compensatory education' and 'the socially disadvantaged' can cover a wide range of educational programmes, and can be applied to as diverse groups as the isolated rural poor, or ethnic minorities in the city centre. Such phrases, it appears, are essentially vague in reference. Despite this vagueness, however, and though it would be plainly wrong to claim that programmes grouped under the general term 'compensatory education' are a completely new feature of educational systems—historical examples of 'positive discrimination' and special educational provision for the poor can be found —there is strong justification for treating the recent developments in this field, in the United States and other countries, notably Canada and Israel, as an important and distinct stage in the process.

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Such an approach can be justified on a number of grounds. In the first case, in many compensatory programmes there has been a more determined attempt than in the past to use the growing evidence of educational, psychological and sociological research to diagnose more accurately the problems of the disadvantaged and to shape programme content accordingly. Secondly, there has been a growing commitment to the idea of 'experimental programmes'—the idea that educational change should be introduced on an experimental basis at first, before being universally adopted. Thirdly, associated with experimental programmes, there has been increased stress on evaluating the effectiveness of such approaches by objective criteria. Fourthly, there has been a shift in emphasis away from programmes designed primarily to single out potential high achievers from economically depressed groups, to those where the objective is to raise the general level of the group. And fifthly, there is the scale of resources employed. Of course, any compensatory programme may be criticised for not reaching acceptable standards in any of the areas listed; many have been faulted for misinterpreting research evidence or using inappropriate evaluation

methods. In others the resources of time and money available have clearly been inadequate for the objectives that were set. The point being made here, however, is not, at this stage, to assess how well or badly programmes have met acceptable standards, but to suggest that it makes sense to talk in general terms about 'compensatory education' as a single movement.

As compensatory programmes begin to be planned in other countries, it is important for there to be full discussion and evaluation of the experience that has already been gained elsewhere. Often the reaction to the American experience in compensatory education is either to dismiss the whole episode as a failure, or to deny its relevance to the European scene; or at the other extreme, to accept uncritically one particular aspect. Both approaches overlook the extensive range of programmes that can be grouped under the general heading of compensatory education. Certainly there are major differences between the organisation of the American educational system and that of many European countries; there are differences, too, in the scale of social problems that each is facing. Yet this does not necessarily argue for the irrelevance of American experience in this field; it suggests that direct replication of American programmes may be inappropriate, without careful study of their particular objectives and the social and educational context in which they operated. Thus, the closely structured preschool training outlined by Bereiter and Engelmann (1966) may be an appropriate method of preparing children for the typical American elementary school, but whether such an approach can be adopted with success where there are different traditions of primary education is a separate question.

The main purpose of this study is to provide a general introduction to American work in compensatory education, making clear the wide range of approaches that are covered by that term. The study is limited to American projects concerned specifically with education, though educational programmes with a broader 'community' focus have been included.

In considering the type of presentation that would best serve as an introduction, it seemed neither possible nor desirable to attempt an overview of the field. The American writers Gordon and Wilkerson, in *Compensatory Education for the Disadvantaged* (1966), included as an appendix to their book what at that time was described as a comprehensive 'Directory of Compensatory Practices'—an annotated list of projects under state and city headings. It is questionable whether a similar exercise at the present time would be feasible in view of the number and variety of projects to be covered, even though the growth rate in programmes has recently levelled off as funds have been cut back. In their book, published in 1966, Gordon and Wilkerson quote a statement by the sociologist R. J. Havighurst, made in 1964 about the education of the disadvantaged in Chicago: 'there is probably not a single suggestion made anywhere in the country for the improvement of the educational program for such children that is not being tried out, *within the limits of available resources,* in some Chicago school'.

Since that remark was made, to mention only large scale efforts, there has been the Head Start programme, set up under the Economic Opportunity Act of 1964, which provided funds for local groups to organise preschool facilities. In the first summer of Head Start more than 500,000 four and five years old from depressed areas were enrolled in thousands of preschool centres for an eight week summer course; these centres were set up by local school boards, schools and community action groups. Inevitably, these different forms of organisation resulted in a considerable

diversity in the type of preschool curriculum that was operated. Rather than a single programme, Head Start covered a range of approaches. Similarly there have been many programmes under the various headings of the Elementary and Secondary Education Act of 1965, particulary Title I, through which several thousand projects were supported in the first year of operation. Under this Title local school districts received funds in proportion to the number of children in schools from families with an income of less than $2,000 per year. These Title I funds, which were estimated to be about $1 billion (US) per year, were intended for projects designed to raise educational standards among the disadvantaged. The number and diversity of projects under these various programmes would mean that an overview at the present time would be little more than a catalogue of projects, perhaps grouped according to the area of education they covered.

Equally a procedure involving some form or quality sampling of the field was beyond the scope of this report. A method of this type was, however, used in a study conducted for the US Department of Health, Education and Welfare by Hawkridge, Chalupsky and Roberts (1968). The authors examined reports of more than 1,000 educational projects for the disadvantaged in the period 1963-8. With the help of a panel of national experts, about 100 programmes were selected ; selection was based on evidence that the programme had enabled children who took part to progress more rapidly than if they had not done so. Following site visits and more detailed examination, a final total of 21 projects which met the necessary evaluation criteria in full was obtained. These projects are described in the report. A major purpose of this approach was to provide information for administrators who might wish to replicate programmes that had a reasonable chance of success.

A further possible method of presentation would be to place the phenomenon of 'compensatory education' in its social and political context, perhaps relating its development to the liberal tradition of educational reform as a panacea for a range of social and economic problems. From this angle, an important forerunner of compensatory programmes would be the 'talent search' type of project, set up under the National Defense Education Act (NDEA) in response to the fears, given impetus by the launching of the first Sputnik, that America was falling behind in the production of highly skilled manpower. These projects aimed to locate potentially talented youngsters at an early age and provide special training for them, particularly in scientific subjects. There were good grounds for supposing that a considerable proportion of this untapped 'talent' might be found among disadvantaged groups. Interestingly, as concern with education for the poor increased new clauses were introduced into the NDEA in 1964 to allow its funds to be used specifically for the disadvantaged. Though the origins of compensatory education and its links with the educational movements that immediately preceded it are clearly relevant, the main concern of the present study is to examine the educational innovations in compensatory programmes, the research evidence for their adoption, and the effects that such changes in educational provision achieved. Inevitably this approach entails consideration of the reasons why educational solutions were looked for in the first case, but there is no detailed attempt to examine the social and political context of such innovations.

A fourth possibility is that the study should be largely prescriptive, providing specific findings and lessons that could direct European efforts

in developing programmes for the disadvantaged. Yet this approach is immediately undermined by the present position regarding compensatory projects in the United States. The early confident optimism about the success of such projects, for example reported by Maya Pines (1969), has given way to considerable pessimism about the long term effects of past programmes and the likely results of future work. This impression is supported by a study of the literature, which has changed from predominantly reporting successful programmes to a concern with articles questioning the criteria by which such successes were measured, and more widely an investigation into some of the assumptions upon which such projects were based. The apparent failure of many compensatory projects has been used by Jensen (1969 *a*, 1969 *b*) as additional evidence for reopening the debate on the relative effects of environmental and genetic factors in determining intelligence. Though such fundamental discussions about the basic assumptions of compensatory education may be timely and beneficial in the long term, they cut the ground from beneath any attempt to derive a specific set of proposals for action whose effects have been carefully evaluated. What in fact emerges instead of detailed proposals are general guidelines for developing programmes for the disadvantaged, and a set of ideas that could be translated into action but which as yet are largely untried.

Perhaps the most important feature of the compensatory education movement in the United States, for those who are currently planning similar work in other countries, is not so much the specific details of action already taken, but the on-going debate about methods of educational change that has accompanied the setting up of new projects. Each project is a kind of milestone marking a point in the debate where particular assumptions and theories have been put to the test. Naturally there are approaches which are in conflict, and accordingly there are diverging routes, each following its own set of assumptions. Diverging routes may meet together again where long term objectives are identical, or they may continue to diverge.

To convey this feature of the compensatory education movement, the best method of presentation is to select a limited number of themes or ' strategies of change ' and illustrate them by brief descriptions of American educational projects that are related to the area in question. By this method, descriptions of projects are set in a framework of discussion about the objectives, problems and assumptions that underlie a particular strategy of change. At a more general level there is a chance to link different strategies to one another, perhaps showing the development in approach, or alternatively showing how the choice of one strategy can work against the adoption of another.

Using this approach suggests the following outline for the study :

i) the social and economic problems that many compensatory programmes attempted to alleviate, and a discussion of their objectives and some of the concepts employed :

ii) educational programmes that introduced change into the ' learning situation ', principally within the school or classroom :

iii) projects designed to alter the relationship between schools and other social institutions, by new methods of organisation or new personnel ; and finally

iv) the problems of evaluation and research connected with such programmes.

Programme areas which are of less immediate relevance to other countries, for example projects which are directly concerned with increasing college entry by the disadvantaged, have been given less attention; schemes of racial integration involving pupil transfers have also probably been given less space than is their due, judging by the numbers of such projects in the United States and the importance attached to them by many Americans. These are cases where differences between the educational systems and social conditions of the United States and other countries obviously suggest different emphases in programme areas. In other cases, differences in educational organisation and values on the one hand, and in social conditions on the other, may act more subtly to make elements in American compensatory programmes inappropriate for European experience. Comparative analysis, however, to examine these differences is beyond the scope of the present study.

Chapter II

THE DEVELOPMENT OF COMPENSATORY EDUCATION: SOCIAL PROBLEMS, OBJECTIVES AND CONCEPTS

In this chapter we examine the development of compensatory education, looking first at the social and educational changes that have prompted the demand for special programmes for the poor, then at the range of objectives set for such programmes, and finally at some of the terms and concepts that have been used. It is not intended to be a historically precise account, but rather an outline of some of the main stages in this development.

Ideally those planning compensatory programmes might hope to have at hand clear-cut objectives and concepts to provide a framework within which research could be directed to find solutions to a particular set of social problems. The development of compensatory education demonstrates clearly that such a state of affairs rarely eixsts at the meeting point between social research and social action. In practice, objectives are often vague and shifting, and concepts based on poorly articulated theory. And there are a range of possible responses to the social problems that have underlined the need for anti-poverty programmes. The position is further confused by the fact that the three levels—problems, objectives and concepts—are closely interwoven and tend to interact. Thus a particular stance towards a set of social problems will influence the selection of programme objectives, and may contribute to the formulation of new terms to identify the programmes and the groups to be served by them. As those terms become increasingly used, public attention may be focussed on problems which have long existed. A similar process may occur where fresh research findings indicate that social action programmes may produce change in characteristics previously thought to be fixed. Equally the continuation of a long-established trend can lead to the identification of new problem areas, as, for example, occurred with the secondary school drop-out rates in the United States: Schreiber (1967) notes, 'a little more than fifteen years ago, when more students dropped out of school than graduated, there was no noticeable public concern ... Paradoxically, the dropout problem surfaces at a time when the proportion of youngsters who quit school before graduating is lower than ever'.

In practice, those tracing the development of compensatory education are faced with little that is clear-cut. There are almost no definitions, objectives or theories which are generally acceptable to all involved in the development of programmes; one group may challenge the most basic assumptions of another. There has been a rapid process of uncovering new

problems, or redefining old ones, of formulating new objectives, and a proliferation of new terms and concepts. The interaction between the three areas makes it hard to draw sharp distinctions. The procedure used here is to trace in a schematic way some of the developments, rather than to keep rigidly to each area in turn.

A. Social Problems

America's contemporary urban and racial problems have been extensively described and analysed elsewhere ; a study which focusses on recent educational innovations in depressed areas of the United States cannot add anything particularly new to the general discussion. A brief account, however, of the social context of such programmes will provide reference points for educational projects that are referred to later and may aid understanding of the general objectives behind some of these projects ; it may also provide a basis for judging the relevance of a particular type of educational innovation for adoption in another country.

For the purpose of this study it is appropriate to make an initial division of ' problems ' into two categories ; firstly there are the larger-scale social, political and economic changes that have aggravated or thrown into greater prominence the problems of depressed areas, and secondly, the strictly educational problems that have been associated with these changes. The question of the relationship between these two categories of problem will be taken up in the discussion of objectives and concepts.

Social Change

In the decades since the war, the United States—in a period of almost continuous economic expansion—has experienced both a steadily rising population and a high rate of urbanisation ; the increase in the population being largely the result of a rise in the post-war birth rate, rather than the effect of immigration from other countries. By 1960, ' approximately two-thirds of all Americans—white and Negro—lived in metropolitan areas ' (US Commission on Civil Rights, 1967) ; and in the period 1940-1960 the population of these areas had increased by 40 million [1]. Underlying these general trends, however, there have been important ethnic differences. The rate of urbanisation among the Negro population has been more rapid. From a predominantly rural population at the beginning of the century, more than two-thirds were resident in urban areas by 1960.

Though by this date roughly equal proportions of the Negro and white populations lived in metropolitan areas, patterns of settlement within these regions were quite distinct and in the process of rapid change. In the period 1940-1960 almost all the increase in the number of Negroes in urban districts was in central cities ; while in the same period the growth in the number of whites in these districts was largely restricted to the suburbs. As the Commission's report noted, ' between 1950 and 1960 the suburbanisation of whites accelerated ; nearly 90 per cent of their metropolitan increase occurred in the suburbs '. This process was most marked in the 24 largest metropolitan areas, with populations of one million or more, where nearly

1. This and other data in the section, unless otherwise stated, are drawn from the report of the US Commission on Civil Rights, *Racial Isolation in the Public Schools*, Government Printing Office, Washington DC, 1967.

100 per cent of the increase in the white population occurred in the suburbs. In actual numbers ' between 1950 and 1960, the 24 central cities lost nearly 1 $^1/_2$ million whites, and gained more than 2 million Negroes ' (US Commission on Civil Rights, 1967). Already by 1960 a number of cities had majority Negro populations, including Washington DC.

Within the central cities the growth of ghetto districts has emphasized the degree of residential segregation by race. A study of 207 cities (Taeuber and Taeuber, 1965) cited by the Commission's report, calculated that to achieve a racially even distribution of the population within those cities, an average of 86 per cent of the Negroes who lived in predominantly Negro blocks would have to move to predominantly white blocks. These racial concentrations within the inner city and its suburbs are graphically portrayed in the Commission's report for such large cities as Chicago and St. Louis. The same pattern is seen in clearer detail in many smaller towns ; in Rochester, New York State, where the non-white population more than tripled in the decade 1950-60, the central blocks of the city are predominantly Negro. Surrounding this core area is a ring of blocks mainly inhabited by recent European immigrants often of working-class status. The bulk of the middle-class white population is found in the suburbs stretching out as far as the lake to the North. Because of its size, Rochester was able to trace the origin of recent non-white migrants to the city. The majority come from Florida, Georgia and South Carolina : and from these the largest number come from a single depressed area in central Florida, drawn by the prospect of employment in the North. In many cases, the migration had at first been seasonal, at periods of low economic activity ; gradually a more permanent pattern of migration has developed. The experience of Rochester is likely to be typical of other prosperous Northern cities receiving an increasing flow of Negroes from the South in the period 1950-60. In the smaller cities, the scale of such racial concentrations may still make it possible to apply conventional solutions, for example by rezoning school catchment areas so that the school populations themselves are integrated. In the large cities the extent of such concentrations, which may exceed one million people, present a far more formidable challenge.

The immediate reasons for this pattern of ' de facto ' segregation are not hard to find. The Commission's report isolates housing discrimination in both the private and public sector as a major cause. Even new housing developments have often been restricted to particular income groups, and thus inevitably become racially segregated. Though housing discrimination may be the prime cause of such racial concentrations, the growth of such areas produces consequences that have accelerated the trend.

To concentrate on the racial differences between the populations involved in these changes in urban structure may be to overlook or at least underestimate the social and economic polarisation within metropolitan areas that such changes have signified. Though Negroes contribute the most dramatic and visible example of ' inmigration ' (the urbanisation of groups already resident in the United States), their movement into central cities was the result of factors that affected other groups from depressed areas—both racial minorities such as Puerto Ricans and Mexican-Americans, and whites from such areas as the South Appalachians. Havighurst (1963) has suggested the use of a ' status-ratio ' formula, based on the ratio of middle-class to lower-class pupils within a school, as a way of assessing the ' dynamics ' of these changes. He demonstrated that in areas of Detroit the ratio

declined rapidly once a critical point had been reached ; schools in transition areas quickly showed a predominantly ' lower-class ' ratio as the remaining middle-class parents hurriedly withdrew their children and left for the suburbs.

Polarisation on socio-economic lines within metropolitan areas was accelerated by two associated economic changes—part cause and part effect of residential segregation. At the same time as middle-class and skilled white workers moved out to suburban areas, new industrial and commercial building particularly for service industries intensified in these areas, increasing their attraction as places of residence. In contrast, heavy and declining industries employing numbers of unskilled workers generally remained in central districts. As the Commission's report states, ' the suburbanisation of industry tends to concentrate more taxable property and white families of higher income and higher educational attainment in the suburbs. '

Given the localised structure of some revenue collection in the United States, whereby education and a number of social services are largely financed by property taxes levied in the locality, the loss of revenue from both industrial and private sources in central cities contributed to the speed of residential movement. For central cities, with an increasingly eroded tax-base as property deteriorated and industry moved out, were in fact faced with larger demands on their resources to provide for housing projects and assistance programmes as well as ' services such as fire and police protection, sanitation and transportation, the benefits of which are shared by non-residents ' (US Commission on Civil Rights, 1967). The resources of the inner city to provide for improvements in education were likely to be limited —another reason for movement by the informed middle-class to the suburbs, where alternative demands on the budget were not so extensive.

The location of many growth industries in the suburbs underlined the economically weak position of the typical city centre resident, possessing low educational qualifications, with poor job opportunities close at hand. An additional factor in the mid-sixties was the sudden rise in the number of children at school leaving age—the effect of the post-war rise in the birth rate. As Bienstock (1967) demonstrates, the number reaching 18 years of age jumped from 2.8 million in 1964 to 3.8 million in 1965 ; and though declining slightly from this peak in subsequent years, the figures remained at a high level. The critical school ' drop-out ' period, for this age-cohort, was in the period 1963-5 ; it is perhaps relevant that at this period, despite a drop in general adult Negro unemployment, the unemployment rate for Negro teenagers remained very high ; and at this period too, drop-out rates rose slightly following a period of continuous decline (Kaufman and Lewis, 1968).

The theory that this persistent hard-core unemployment, particularly among Negroes, was the direct result of growing industrial automation which put the semi- or unskilled workers' job at a discount was frequently used to explain these developments. The unqualified school drop-out was clearly a candidate to swell this group, and he in his turn would produce a family that would further add to those who were unemployable. The ' inmigrant ' from the South, displaced from rural areas and small towns as agricultural practices altered, would find himself bypassed by industrial change in urban areas as well. Statistics of unemployment among such groups appeared to lend support to these arguments. Further analysis suggests that the position is more complex than the ' automation theory ' suggests. In the first case,

it has been argued that automation may actually increase the number of unskilled jobs, even in fields previously associated with highly skilled personnel : ' a number of computer operations, for example, demand very little in the way of literacy and no mathematics at all. The difficulty lies in persuading employers that such is the case ' (H. L. Miller, 1967). It may be that the problem is as much in the employer's reluctance to take on unqualified labour as it is in the unqualified drop-out's incapacity to carry out the job itself. S. M. Miller (1967) has outlined the idea of the ' credential society ' where employers are guided by the possession of educational qualifications rather than by the ability of the job applicant, where qualified labour is hoarded and under-employed on low level work, and where entry by the unqualified is blocked. Secondly, there is considerable evidence of job discrimination against Negro youth ; and thus drop-out from school without qualifications may well represent a realistic assessment that further education will not significantly improve job prospects, rather than a thoughtless decision to leave school—a product of the ' culture of poverty ' hostile to education. The unemployment found among ghetto youth is seen to be the product of a set of factors—the location of growth industries in the suburbs, discrimination in selection, and the increasing accent on qualifications, as well as changes in employment opportunities for semi- and unskilled workers.

The increasing polarisation on social and economic and therefore racial lines within metropolitan areas clearly promoted a change in the ' political climate ', whether this is measured by the number of studies, surveys and reports on the changing urban scene or by the shift in attention from the issue of legally based segregation in the South to the growing de facto segregation in large cities. Both aspects mark a change in emphasis from considering the problems of political and legal inequality to the far more complex and difficult issue of social and economic inequality. Perhaps the most important finding that this change underlined was the apparent failure of previous policies to make substantial impact on the problem ; and the critical fact, stressed by many studies, that despite a lengthy period of sustained economic expansion the degree of inequality in social and economic terms had not been significantly reduced. These findings gave little support to the argument that further overall economic growth would produce greater social and economic equality. They suggested that alternative methods would have to be adopted to achieve the goal of greater equality of opportunity.

Though the Negro population has clearly made economic gains in absolute terms, any improvement in relative terms appears to have levelled off in the immediate post-war period. In 1952 Negro income was on average 60 per cent of the white average income ; in 1960 it had only progressed to 61 per cent of the white average (Silberman, 1967). And as the Commission on Civil Rights makes clear such changes in fact conceal a deterioration of the relative positions. Between 1949 and 1964 the median income of non-whites rose from $ 1,650 to $ 3,800 ; in the same period that of white families rose from $ 3,200 to more than $ 6,800. Thus the differential rose from $ 1,600 to more than $ 3,000 : clear evidence that overall economic growth can in some ways produce greater inequality, unless some form of compensating mechanism is developed to aid low status groups.

The effects of ' inmigration ' from rural areas and particularly the South, and the growing residential segregation within metropolitan districts were to

concentrate a large population—relatively homogeneous in racial and socio-economic characteristics—within the inner city. Inevitably, from an educational point of view, this meant the concentration of problems associated with low status and low income backgrounds, large and possibly disorganised families, and the range of factors which are known to be linked to poor educational performance. These problems themselves were not new; but their scale and concentration were certainly unprecedented. Already by 1965 a number of city school districts had majority Negro school enrolments at elementary level; in Washington DC enrolments in that year were 91 per cent Negro. Though the statistics are given for racial characteristics, the dimensions of the problem were both racial and socio-economic. The degree of overlap between these two sets of characteristics in the United States, and the greater concern with racial segregation and inequality, can often obscure the fact that the problems of residential segregation by race are often those of segregation by social class, though in an aggravated form. The data available, as has been noted, often give racial rather than socio-economic characteristics, and for this reason they may well underestimate the problem by omitting white groups in poverty areas.

Though the inner city was clearly the area most in need of new resources to meet the changed conditions, attention was also turned upon rural communities, from which city 'inmigrants' were drawn. Here was a possible chance to set up programmes which would forestall future problems. Rochester, for example, having identified an area in Florida from which many of its 'inmigrants' came, set out to promote industrial development in the district with the cooperation of the local state authorities.

This outline of some of the social and economic changes that formed the context for educational programmes for the disadvantaged leads us to consider the more strictly educational problems that were associated with these changes. Again the schematic way the development has been traced does not imply a historical sequence of events.

Educational Problems

For a number of reasons the effects of residential segregation were felt more acutely at school level. In some areas the way school catchment areas were zoned ensured that white enclaves within ghetto areas were attached to majority white schools on the outskirts. In general, the difference in age distribution between the Negro and white populations meant that Negro children of school age accounted for a higher percentage of all children in metropolitan areas than the Negro percentage in the overall population of such areas would suggest. Summarising the position in 1965, the Equality of Educational Opportunity Survey (Coleman, *et al.*, 1966) calculated that 'almost 80 per cent of all white pupils in 1st grade and 12th grade attend schools that are from 90 to 100 per cent white ... More than 65 per cent of all Negro pupils in the first grade attend schools that are between 90 and 100 per cent Negro'. In simple majority terms, almost all white pupils attended white majority schools both at 1st and 12th grade: among Negroes, 87 per cent at 1st grade and 66 per cent at 12th grade attended majority Negro schools. Though there are variations in these figures by region of the country, and in metropolitan or non-metropolitan areas, the dominant pattern is maintained, particularly in the metropolitan South where almost all children at both grade levels attend schools that have a majority

of children from their own ethnic group. Other minority groups show a lower degree of concentration within schools, particularly at the higher level. A number of Indian-Americans and Mexican-Americans attended a school at first grade where they were the majority group (Coleman, *et al.*, 1966).

Changes in residential segregation are reflected too in the rate of turnover among pupils, as schools altered from being majority white to majority Negro institutions. Havighurst (1967) outlines the recent history of an elementary school in an area of transition. In 1955, the school, with an enrolment of 1,250 pupils, served mainly middle class white families of German, Dutch and Swedish origin. By 1960, the numbers had reached 2,400—and to accommodate them, two teaching shifts were required. Transiency rates reached 70 per cent in the year 1960-61 when 1,900 pupils transferred in or out of the school. Since then transiency rates of more than 100 per cent have been reported from other areas. A further example cited by the Commission on Civil Rights report illustrates the rapidity of change once Negro enrolment had reached a critical point: an elementary school in Cleveland, Ohio, was 96 per cent white in 1933; 'over the next 25 years Negro enrolment at the school increased slowly at the rate averaging less than 2 per cent per year. In 1958 Moses Cleveland School was 47 per cent Negro ... By 1964, the school was 95 per cent Negro' (US Commission on Civil Rights, 1967).

Justman (1967) studied the effects of transiency rates on disadvantaged children in New York city; he demonstrated that when four or more elementary schools had been attended by the child between third and sixth grade, there was a significant fall-off in both ability and achievement scores. From this study it is not possible to conclude whether the change was purely the result of transfering from school to school, or a by-product of a disorganised home-life. Significantly pupils who experienced a large number of transfers already had the lowest pattern of scores at the outset of the investigation. Smith, Husbands and Street (1969) examined the relationship between transiency and IQ scores over time in nine Chicago elementary schools in a low income area. Pupil mobility appeared to have a significantly retarding influence upon ability—the effect being most marked before third grade. Pupils of low IQ were most affected by this mobility before third grade. The authors suggest that 'transiency' may be an 'intervening' factor that heightens the effect of more general social disorganisation.

The concentration of ethnic minorities within the inner city presented an additional problem for schools where the language spoken by the group was not English. This is not, of course, a new problem; education in the United States has a strong tradition of 'Americanising' immigrants from diverse national origins. But again there is the scale of the present problem, and its concentration within certain areas. The difficulties of language, too, are likely to be combined with those stemming from social disadvantage. And there may be a further dilemma for schools, where the language group involved is concerned to retain its language and cultural identity to avoid being confused with other ethnic groups who may be considered of lower status.

School control was another issue highlighted by the social change in urban areas. At an individual level, particularly in secondary schools, incidents between pupils and teachers from different racial groups have been well publicised, even though serious incidents may have been relatively rare

and isolated cases. These tensions within the school perhaps reflected the changing position outside. The existence of substantial communities of a single ethnic group exposed apparent anomalies in the way school districts were controlled. Often these were run by a predominantly white school board serving a wide area. Attempts to reform schools in disadvantaged areas have shown up the problems of school control, where the school board and school administration are mainly white. The development of policies for 'community control' or decentralisation are a response to the changed situation in the inner city and the pressure from disadvantaged groups for greater social and political equality.

In the previous section we referred to the problems of the declining tax base in the inner city, and the demands of other social services on the available resources. Though in 1950 the amount spent per pupil was higher in central city areas, by 1964 the position had generally been reversed, and the trend was for increasingly higher spending on education in the suburbs. Federal aid under such compensating measures as Title I of the Elementary and Secondary Act of 1965 had some effect on the relative positions. But even by this date, state contributions were shown still to be giving greater support to suburban areas in a number of cases (US Commission on Civil Rights, 1967). The Coleman Report (Coleman, *et al.*, 1966), in its study of how far equality of educational opportunity had been achieved among different racial groups, found variations in the typical school facilities experienced by white and Negro children. These variations may in some cases reflect differences in expenditure between inner city and suburban areas. In others, they demonstrate the contrast between outdated facilities in the centre and newer buildings on the outskirts. At elementary level, in metropolitan areas the Negro pupil was more often than his white counterpart housed in school buildings over forty years old. This was also true at secondary level in the metropolitan Northeast. In general there were more Negro students for each teaching room available, and the pupil-teacher ratio was slightly worse ; the difference between Negro and white students widened in this respect at secondary level. Negro students attended schools with fewer physics, chemistry and language laboratories ; library and text books were likely to be fewer in number, and certain curricular and extra-curricular activities were limited. There is no strong evidence that changes in the relative economic positions of suburbs and central city have resulted in differential salaries paid to teachers (US Commission on Civil Rights, 1967). The major variations in this respect are inter-regional ; for example in 1964 the average salary in the south was $ 4,973 and in the rest of the United States $ 6,105 (Rees, 1968).

As conditions in the inner city changed and the schools were increasingly affected by problems such as pupil turnover, groups of non-English speaking children, control and discipline, and declining resources to meet these needs, it seemed likely that there would be a corresponding increase in teacher turnover and a decline in teacher quality. Some of the first compensatory programmes were designed to counteract such developments. Courses were set up to introduce teachers in training to the difficulties of teaching in depressed areas, as a way of promoting teacher stability and continuity. Case studies of schools, for example Kozol (1967), pointed out the problems of teacher quality in disadvantaged areas, and details from particular cities cited in the Commission on Civil Rights report provided further evidence : in Oakland, more probationary teachers were found in

majority Negro schools than in majority white schools ; and in Philadelphia there were more substitute teachers in majority Negro schools. ' In some cities, such as Boston and Milwaukee—there has been higher teacher turnover in schools with increasing Negro enrollment than in nearly all-white schools ' (US Commission on Civil Rights, 1967).

The Coleman Report, however, suggests that the problem is more complex than that purely of high turnover rates associated with a decline in the quality of teaching. The Report primarily studied the variations in educational opportunity available to different ethnic groups, rather than the differences between city centre and suburb. The overlap between these areas is probably substantial enough for the findings to be a guide to the position. The Report shows that on average Negro pupils in the elementary school had teachers with slightly longer teaching experience, both in total and in their current school. This was partly accounted for by differences in the metropolitan South where the average total experience in teaching and the average length of service in the present school were higher for teachers of the average Negro pupil. In the metropolitan Northeast, however, there are differences showing slightly longer experience and tenure for teachers of white pupils compared with those for Negroes. Teachers of the average Negro pupil were less verbally skilled, as measured by a verbal facility test, and this was particularly true in Southern states. In general there appeared to be slight differences in training patterns in favour of teachers of white pupils, though many of these differences were largely accounted for by results from the South. Attitudes expressed by the majority of teachers and college students preparing for teaching expressed ' a preference for academically oriented schools—with a high proportion of middle-class children. Such schools are usually found in the suburbs ' (US Commission on Civil Rights, 1967). There was a tendency for teachers of the average Negro pupil to be less willing to remain in their present school, or to re-enter teaching if the choice could be made again. A number of criticisms have been made about the reliability of the Coleman study—for example, Dyer (1969). There were problems of non-response to the survey from several school districts, and it is possible that the method of enquiry has obscured inequalities in certain areas. However, despite these reservations, the findings indicate that the problems of teacher turnover ratio and teacher quality in disadvantaged areas are more complex than the common notion of ' slum teachers for slum schools ' suggests.

One way of assessing the equality of education in depressed areas is to look at the standards of provision, for example, the financial resources available to such areas, or the qualifications of teachers in the schools, as we have done in the first part of this section. A second method is to examine outcomes of the educational process, measuring the average attainment levels achieved by disadvantaged groups, and the holding power of the educational system at higher and more selective levels. The low attainment levels and high drop-out rates found in depressed areas are both a function of other social and educational deficiencies and themselves contribute to further disadvantage by reducing employment prospects. Research studies have now extensively documented the relationship between average scores on tests of ability and achievement and the socio-economic position of children tested. Inevitably, in the context of depressed areas this relationship between social class and educational performance has become entangled with the question of race and its effect on attainment levels.

Several studies have examined the relationship between race and educational performance, while attempting to control for the effects of socio-economic status. In a study of language and cognitive development, Deutsch (1965) sets out the relative effects of socio-economic status and race for children at first and fifth grades of school; at first grade, social class appeared to be correlated more often than race with series of scores derived from a battery of tests. At fifth grade the deficiencies associated with socio-economic status had been joined by those of race; 'what is found is a deficiency based on class and race in the measures which reflect abstract and categorical use of language as opposed to labeling and denotative usage ... as the complexity of the levels increases, from labeling, through relating, to categorising, the negative effects of social disadvantage are enhanced' (Deutsch, 1965). Deutsch implies that the additional handicap associated with race is the result of Negro children growing increasingly aware of their subordinate status as they grow older, and avoiding contact with such groups as teachers because of different styles of communication.

Stodolsky and Lesser (1967) report a study which suggests that ethnic groups may have particular patterns of ability independent of social class position. They examined the scores of six and seven year old children from four ethnic groups, Chinese, Jewish, Negro and Puerto Rican, on four ability tests, verbal, reasoning, number, and space conceptualisation. The profile of scores for each ethnic group showed distinct patterns of strengths and weaknesses on the four tests. Within each ethnic group, it was shown that this pattern was retained despite differences in social class position. Lower-class Chinese children displayed the same profile on the tests as middle-class Chinese, though at a lower level, and the same was the case in other groups. Lesser and Stodolsky argue that their study goes beyond the conventional finding that one ethnic group is superior to another, by mapping the particular strengths and weaknesses of each group in a number of cognitive areas. Their findings, they suggest, have implications for the type of educational programme suitable for different ethnic groups—a point to be taken up in the discussion of the objectives for compensatory programmes. Nevertheless the work of Stodolsky and Lesser, though showing different patterns for each ethnic group, demonstrates that the lower-class Puerto Rican and Negro children in their study had a lower pattern of scoring on all the tests than the other two groups. And in each group the middle-class children had higher sets of scores. The initial point to be established here is the difference between the norms of ability and achievement to be expected between school children in middle-class and depressed areas—a finding that Jensen (1969 *a*) terms, 'one of the most substantial and least disputed facts in psychology and education'; though whether such variations are primarily the result of cultural factors or more basic genetic variations between ethnic groups is certainly a more controversial issue.

Jensen (1969 *a*) reviews a number of studies dealing with variations between racial groups in educational performance, including that of Shuey (1966) whose work covered several hundred studies concerned with aspects of Negro intelligence. Jensen concludes that on tests of ability Negroes on average score about one standard deviation (15 IQ points) below the average of the white population. On verbal ability, the Commission on Civil Rights report, using data from the Coleman study for the metropolitan Northeast, found that at 12th grade children from 'low' social backgrounds (measured in this case by length of parental educational attainment) had a lower pattern

of scoring than those from ' medium ' or ' high ' backgrounds. This was true both for Negroes and whites. However, the school grade equivalents for this test showed that Negroes in the ' high ' category had on average lower scores than whites in the ' low ' category : there was in fact no overlap at all between the two ethnic groups. On tests of school achievement, the Coleman study found that at both 1st and 12th grade Negroes scored about one standard deviation below the average of the white population, though the gap had widened slightly by the higher grades. There were marked regional variations in this pattern : Negroes in the metropolitan South and Southwest experienced a relative decline in standardised score between 1st and 12th grade, which was not so in the metropolitan Northeast. Selective drop-out by Negroes at the higher grades suggests caution in interpreting these figures and any change between earlier and later grades.

Results from the Coleman study provide evidence on the problem of ' cumulative deficit '—that pupils from depressed areas appear to fall further behind normal as they grow older. The study by Deutsch, outlined above, demonstrated the effect of racial and social characteristics at grade five in comparison to grade one ; the Coleman study shows that at 12th grade the average scores for all minority ethnic groups are further below the average for the white population than is the case at grade one—that is, the differences expressed in terms of standard deviation have increased slightly. However it is important to note, as the Coleman report makes clear, that a similar difference in standard deviation has a changing value in terms of years of schooling. With only slight variations in the value of the difference expressed as a standard deviation—' At grade six, the average Negro is approximately $1\,^1/_2$ years behind the average white. At grade nine, he is approximately $2\,^1/_4$ years behind that of the average white. At grade twelve, he is approximately $3\,^1/_4$ years behind the average white '. (Coleman *et al.*, 1966). There is evidence that this relative decline is not necessarily a steady process. Fox (1967) in his evaluation of the New York city ' More Effective School ' project, found that, though in general the students' performance tended to fall increasingly below the average, normal gains were in fact made in some cases during the course of the school year. They were lost over the summer. Fox suggested that this pattern reflected a cycle in the school year which reached a climax at the time of the spring testing session. Studies by Wilson (1959, 1963) in California demonstrate how segregation by race and social class can lead people to expect diverging patterns of achievement. Teachers in segregated or lower social class schools had grown accustomed to lower levels of performance and were more easily satisfied by work of a lower standard. In high status areas teachers were more demanding. In the same way, the concentration of ethnic or social class groups in different schools created varying school ' climates ', and these in their turn affected the educational and occupational aspirations of the students.

The average levels of school achievement by different groups clearly play some part in the rate of school drop-out found in each group. High drop-out rates are found alongside the range of social and economic factors that relate to lower levels of school achievement. Tannenbaum (1968) outlines a study showing that the holding power for the 1963 graduating school class in 182 large cities was more than 5 per cent than the national average ; and in large cities, New York and Philadelphia, for example, the figures were lower still. Studies of ability and achievement by students who drop

out indicates that many are 'under-achievers'; their score on ability tests tends to be higher than that on school achievement measures. S. M. Miller (1967) in his typology of the drop-out, suggests that his fourth type, those who find school work irrelevant to their needs and interests, are perhaps more common than those who find school work too difficult. The 'drop-out' period lies at the point of transition between education and employment, and drop-out rates will perhaps reflect the degree of difficulty experienced by different groups in moving from one area to the other. Tannenbaum (1968) demonstrates that more unemployed school leavers were in fact achieving a high school diploma, and that the educational level of the unemployed had risen more rapidly than that of employed manpower. Drop-out from school before completing such a diploma may be for some a realistic assessment that two more years of high school may only marginally increase the chances of employment. Job discrimination against Negroes was clearly an important cause of this situation; as Tannenbaum (1968) notes for 1964, 'unemployment rates for nonwhite high school graduates in the 16-24 age group *exceeded* that of white dropouts and just about equaled that of nonwhite dropouts'.

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In this section we have outlined some of the social changes and educational problems that lead to the development of compensatory education. The concentration of ethnic minorities in the inner city and the move of the white middle-classes to the suburbs can be traced back well into the pre-war period. But the trend has intensified since the war, particularly in the 50's and 60's. Data from the 1960 census provided clear evidence on the degree of polarisation between inner city and suburb that had occurred by that date. Though the rates of migration into large cities from rural areas and the South may have begun to slacken towards the end of the 1960's the concentration of low income groups in the inner city was long before that large enough to present a serious challenge to conventional policies. The juxtaposition of extreme wealth and poverty within the city underlined the fact that general economic growth had not significantly reduced these social and economic inequalities. Negro unemployment, particularly among the young, remained exceedingly high. The inner city's resources, too, were inadequate to meet the growing demands of the poor, weakened by the lack of taxable middle-class property and by the location of new industry in suburban areas. As a result of these changes, schools in the inner city were marked by a high turnover of students, by the use of old and overcrowded buildings, and at times by high rates of teacher mobility or by poorly qualified teachers. The concentration of children from poor backgrounds meant that educational performance was significantly below average. This in turn was often followed by early drop-out from the school system, and particularly for Negro youth subsequent unemployment, producing in its turn families of poor educational potential. Many of these problems, for example the social polarisation between inner city and suburb, and the association between below average educational performance and low socio-economic status, were not new. It was their scale, combined with the resolve to do something about them, that promoted the search for new ways of breaking the 'property cycle'.

B. Objectives in Compensatory Education

Though special educational programmes formed only one component of new policies to solve some of the problems that have been outlined, they undoubtedly received the major emphasis. It may be, as S. M. Miller (1967) has pointed out, that in the United States 'education' is offerred as the standard 'panacea' for a range of problems—'whether those of racial prejudice, sexual unhappiness or economic conflict'. In this case there were reasons why educational solutions appeared to be particularly suitable.

First there was the theory of the 'poverty cycle'; this initially emphasised the closely interrelated aspects of poverty—'inadequate education, low or non-existent income, limited job opportunities, dilapidated and overcrowded housing, poor physical and mental health, an inclination towards delinquency and crime—these and many other characteristics of poverty both cause and are caused by each other, interacting in a manner which renders it virtually impossible for the disadvantaged child, adult or family to break out of the "cycle of poverty".' (The North Carolina Fund: Programmes and Policies, November, 1963, quoted by Marris and Rein, 1967). Later, as Marris and Rein make clear, the theory was interpreted to mean that the cycle could be broken by intervention at one point, and succeeding stages avoided. The educational point on the cycle seemed to offer a suitable period of continuity early in the sequence where the chain could be broken.

Secondly, changes in educational theory provided support for this emphasis on educational programmes to solve the problems of poverty. Recent research had produced fresh evidence on the potential effects that educational programmes might have on basic human skills previously thought to be largely predetermined by genetic processes. Bloom's reanalysis of a number of longitudinal studies of child development (Bloom, 1964), while showing the stability over time of many characteristics, turned attention to the preschool years, where the most rapid rate of growth in intelligence appeared to take place.

Findings from related fields of study also indicated the importance of early experience for the rates of development in cognitive skills. Hunt (1961) summarised a series of experimental studies, that sought to change animal behaviour by altering the environmental conditions experienced by animals in the experiment, particularly at the earliest period of their lives. He outlined a 'new conception of intelligence' that stemmed from these studies, particularly the work of Hebb and Harlow, and contrasted it with the traditional 'fixed intelligence' that was thought to develop through the process of 'maturation'. Hunt related this new conception of intelligence to the theories of Piaget on the development of adaptive ability in young children. For educational purposes, he concluded 'in the light of the evidence now available, it is not unreasonable to entertain the hypothesis, that, with a sound scientific educational psychology of early experience, it might become feasible to raise the average level of intelligence as now measured by a substantial degree. In order to be explicit, it is conceivable that this "substantial degree" might be of the order of 30 points of IQ'. In the face of this kind of evidence about the possible gains to be achieved by new types of educational programmes, it is perhaps not surprising that education was emphasised as a way of solving broader social problems.

Educational programmes for the poor had two distinct sets of objectives: the first set being strictly educational, for example the raising of educational performance levels, and the second set, vaguer social objectives, 'breaking the poverty cycle' and so on. Both types of objective imply some theory or assumption about the ways in which such objectives could be reached. To set meaningful objectives at an educational level clearly entails some understanding of the changes necessary to attain these goals. At the more general level, the educational objectives themselves become the means to achieve wider social goals, and this suggests a relationship between improved educational standards and subsequent occupational position. Clearly the importance attached to such aims as 'equalising educational opportunity' derived in part from the belief that greater equality of educational opportunity will itself contribute to the achievement of wider social and economic opportunity. Yet, as we have argued in the case of the drop-out problem, the relationship between educational attainment and subsequent occupation is far from clear, particularly where there is discrimination in employment. As there is no simple relationship between educational change and change in other social institutions, it becomes uncertain what are appropriate educational objectives for compensatory programmes. Rather than to raise intellectual standards, it may be more appropriate to develop adequate self confidence and social purpose, if job discrimination is the main obstacle to advancement.

These two sets of objectives have added to the uncertainty surrounding the goals of many educational projects. Marris and Rein (1967) report a similar finding for community action programmes—'"What are you really trying to achieve?" asks the naive critic, and finds he has thrown down a provocative challenge'. The stated aims of compensatory educational programmes range from the very broad objective of 'breaking the poverty cycle' to the very specific goal of producing measurable improvement in a particular skill area. The dilemma for the large-scale programme is that the setting of a non-educational objective such as 'breaking the poverty cycle' gives very little guidance for selecting a particular educational approach. The result is that the programme may well include almost any educational change that can be justified as a way of 'helping to break the poverty cycle'. At the other end of the scale, the small-scale research project, by concentrating on the specific outcomes of a particular approach, does not avoid the dilemma. Though the project may have made significant improvements in a particular skill area, it still has to be shown how far this improvement has relevance for wider objectives. The preschool programme which has achieved its immediate objective of skill improvement is committed to a series of follow-up studies to see whether this improvement is maintained. Neither approach has, as yet, an adequate framework within which it can fit its activities; at one end there is lack of knowledge about how far changes in educational standards can affect other areas of inequality: and at the other, there is uncertainty about how far gains achieved at one level of education can be maintained. It is perhaps only by mounting experimental educational programmes, and by researching into their long term effects, that these relationships will be clarified.

The general educational objectives of most of the programmes to be reviewed are covered by the phrase 'equalising educational opportunity'. It is important to note that the meaning of this phrase, as Coleman (1969) makes clear, has undergone considerable evolution. Conventionally the

phrase has been connected with access to educational resources. The Coleman Report, however, showed that in respect of items usually considered to indicate school quality there was far less inequality between racial groups in school than had previously been supposed. As we have noted in the previous sector, the Report demonstrated that though there were differences in the quality of the teaching staff, school buildings and facilities favouring white children, these were often not very marked. Coleman (1969) suggests that it is not necessarily the equality of *access* to these elements that represented equality of educational opportunity, but 'equality in those elements that are effective for learning'. Among 'school characteristics', the Report found that the background of fellow students had the most effect on achievement, teacher quality the next, and facilities and curriculum the least; not unexpectedly, the effect of home background on achievement was much higher than any of the 'school characteristics'. Coleman argues that in ideal terms equality of educational opportunity should imply convergence in the average outcomes of education for different groups, even though each group began schooling at a different level of achievement, because of differences in home background. In practice it is unlikely that such a convergence would occur because of the continuing influences of home background; the important element is 'the *intensity* of the school's influences relative to external divergent influences' (Coleman, 1969).

That Coleman has isolated the general objective behind many compensatory programmes is shown by the fact that projects which aimed to change school characteristics have generally been evaluated on the effects that such changes have had on pupil performance. For example the More Effective School programme in New York City practically doubled the number of teachers in the project schools; the evaluation, however, was based upon improvement in pupil performance (Fox, 1967). The second year report for the Title I programme (US Department of Health, Education and Welfare, 1967) outlines a similar type of objective for the overall programme; a graph shows the present position with the 'poor' and the 'affluent' represented by two almost separate distributions of educational performance; 'progress' is defined as a convergence between these two distributions as that of the 'poor' begins to overlap the 'affluent' distribution. 'Goal' is the complete merger between the groups, with identical distributions and average.

This concern with convergence between the average scores for the two groups raises a number of further questions. The Title I report assumes that both groups will continue to show the same kind of dispersion pattern even though the average score of the 'poor' group improves. Coleman, however, notes that 'convergence' measured by the average score may be associated with an increase in measures of dispersion. It seems likely that many educational programmes applied equally to groups of children may act to increase the variability within the group. A programme intended to produce *general* improvement in the group may in fact act to accelerate the development of a few children. The overall average may show a pattern of convergence with a normal score, yet leave distinguishable 'sub-groups' who fail to show any improvement. It will still be possible to identify groups on non-educational criteria who fail to show any convergence with the general average. This may appear to be an unimportant point, in view of the equivocal results of compensatory programmes, but it has implications for the form that such programmes should take. If the goal of compen-

satory education is to raise the overall educational level of disadvantaged groups, then it may be that standard programmes for the group will not achieve this objective. Some children will benefit more than others, leaving those who will require further special programmes. Such outcomes of compensatory programmes raise the question of whether programmes can be varied to accommodate within-group differences, or whether educational programmes must inevitably act to select out and promote the development of some children at the expense of others, whatever the intention of those who mount such programmes.

Several writers have challenged the assumption that educational programmes for the poor must set as their objective the eventual merger of such groups into the general population, and have denied that equality of educational opportunity should be defined as the convergence of educational performance levels by different social groups. Few projects have in practice developed any systematic alternative. At this point, there is a danger of confusing long term objectives and the means by which they are reached. Many studies of the problem (Riessman, 1962 ; Eisenberg, 1967 ; Goldberg, 1967 *a*) have argued that the strengths and weaknesses of the disadvantaged differ from those of other pupils. Accordingly teaching style and lesson content should be adapted to build on the particular strengths of the disadvantaged. This strategy, in general, accepts a common objective, the raising of educational performance, but argues for different means to achieve this goal. More radical approaches to school reform both in curriculum (Fantini and Weinstein, 1968 *a*) and in school organisation (Fantini, 1969) in the long term appear to accept a similar position, though arguing that at present it is inappropriate to assess the effects of, for example, changes in school control in terms of improved pupil performance. Other writers have outlined alternative objectives for educational programmes. Lesser and Stodolsky (1969) argue that their findings, described above, on the differences between groups distinguished by social class and ethnic characteristics indicate that compensatory programmes for the lower social class groups may have the effect of producing a pattern of convergence. But their findings that the effects of ' ethnicity ' upon patterns of mental ability were shown irrespective of social class position lead them to question whether convergence was an appropriate objective. They put forward the idea of matching instructional conditions to the strengths of particular groups, which may make ' the intellectuel accomplishments of different ethnic groups more diverse '. They argue that society would have much to gain from the ' pluralism ' that might develop.

Jensen (1969 *a*) has taken this approach a stage further ; he claims to have distinguished two distinct patterns of ability which he terms ' cognitive ' and ' associative '. These, he suggests, are found differentially in different social class groups as a result of genetic factors. Schools generally have attempted to teach children in ways that emphasise the ' cognitive ' aspects of learning—and the result is that children from disadvantaged home backgrounds who are stronger in ' associative ' skills fail to make satisfactory progress. Jensen argues that school programmes should be geared to the type of ability possessed by the child. By this means ' all the basic scholastic skills ' will be acquired by both ' cognitive ' and ' associative ' groups, though by different modes of learning. Beyond this basic point it is clear that each group will follow a separate course, as the higher order ' cognitive ' skills play an increasingly important role in achievement. If such diver-

sity of results could be valued equally by society, it might be possible, to argue that promoting a diversity of programmes for different groups is a form of equality of educational opportunity. Each child would be receiving an education suitable to his ability and needs. Yet it is first necessary to be certain that such observed differences between children are the result of genetic rather than environmental processes, and that by offering different educational programmes one is not merely reinforcing social handicap. Even if the observed differences were genetically based, it would be necessary to decide whether education should magnify or reduce them. The experience of educational systems which have based selective secondary schooling upon apparent genetic differences in potential, suggests that particular skills are likely to receive differential social and economic reward. To maximise these differences through education appears unlikely to lead to greater equality of educational opportunity, unless the definition of this term is to be considerably altered.

Despite these attempts to outline an alternative approach, the majority of programmes have tried directly or indirectly to raise children's performance at school. At a general level we can distinguish several ways of achieving this objective ; each method represents a different stance towards the findings of research on the determinants of educational performance. The Coleman Report identified three groups of characteristics that influenced educational attainment ; (*i*) non-school factors, neighbourhood and home background, (*ii*) characteristics of fellow-pupils at school, and (*iii*) school characteristics, teacher quality, curriculum and school facilities. The Report found that home background factors explained by far the most variation in performance, background characteristics of fellow pupils the next, and formal school characteristics the least. Though a number of critics of the Report have suggested that the methods of analysis have obscured the effects of school characteristics and possibly overemphasised the influence of fellow pupils' characteristics (Dyer, 1969 ; Bowles, 1969), the finding for the relative effects of home background and school characteristics is well supported by other studies. Gideonse (1968) summarises a number of studies concerned with this issue. Davé (1963) and Wolf (1964) have examined and quantified in considerable detail the effect of background environment on achievement and ability ; their 'index of educational environment' in the home, provides a powerful explanation of variations in scores on the two types of test. Jencks (1969) has reanalysed some of the data from the Coleman study in an attempt to get round some of the weaknesses of response rate in the original survey ; his findings confirm those of the original Report with respect to the small effect of formal school characteristics compared with that of home background.

In the face of this evidence about the apparent ineffectiveness of school programmes to offset the influence of home and neighbourhood, it is perhaps surprising that school-based programmes have received such attention as a way of solving not only specifically educational problems but wider social problems as well. The influence of Bloom and Hunt has already been suggested. As Jencks (1969) makes clear, there is, of course, no necessary conclusion from the ineffectiveness of present policies to the likely results of future programmes. Emphasis on school programmes for depressed areas received some support from a finding of the Coleman study which showed that minority group children were more influenced by variations in school quality than white groups. It was clear, too, that there was considerable

scope for improvement in the content and methods of schooling, particularly in depressed areas.

At the level of what might be called the 'learning situation'—including in this phrase both curriculum and teaching methods, as well as the length of time that children were exposed to educational materials—there was obviously room for change. Starting from the classroom situation, there was evidence that teachers in depressed areas spent more time on discipline and therefore less on actual teaching. This weakness was not compensated for by the quality of the teachers, who were slightly below average in qualifications and ability. What was taught in these areas often did not take account of the background characteristics of the pupils either in terms of their needs or their interests. It was a standard curriculum, perhaps influenced most by the requirements of middle-class children. Finally it was possible to conceive of extensions to the 'learning situation' to make it more effective, by introducing earlier entry or preschool education, by lengthening the school day, and by setting up holiday programmes to minimise the loss of learning that occurred in vacations. The general approach here is a strengthening and extension of normal practice, attempting to bring in some of the findings of educational psychology and such techniques as the strict sequencing of materials along the lines of programmed learning. The basic argument is that the lack of effect produced by school characteristics is largely the result of the failure to develop appropriate programmes for the poor and apply them to the right age groups.

A second approach accepts the conclusion that the classroom element in education, as traditionally understood, is not by itself adequate to influence achievement to any great extent; instead it argues for the extension of the school's responsibility to cover areas previously not considered part of formal schooling. A number of possible developments are opened up—new institutions to link home and school, programmes to increase parental involvement in the education of their children, and specifically *parent* education programmes. The school itself can be adapted to be more open for parents. Finally there may be changes in the administration and control of schools to allow increased participation in decision-marking by parents or local community representatives. This move to extend the responsibility of educational programmes to include some aspects of the environment surrounding the schools is perhaps a recognition that if the poverty cycle was in fact to be broken some more broadly based strategy was required: a strategy which changed a number of elements in the cycle simultaneously.

A third approach is to integrate schools on an ethnic or social class basis, by rezoning school catchment areas or bussing children to schools outside their neighbourhood. A policy of this kind could well be argued for in terms of wider social values; in a society which believed in integration, it was better to integrate schools, even though this meant moving children to schools away from their immediate community. In the long run integration at school might result in more community integration. Though these general arguments have been used, discussion of integration programmes has often centred on the effects that such changes have on the performance of minority group pupils. The effect of moving pupils from schools in their own area breaks up the conglomeration of factors that contribute to poor achievement. In the depressed neighbourhood, the school which draws the majority of its children from the local community reflects community characteristics. The pupil in school is not completely separated from the

effects of the neighbourhood ; it is represented by the characteristics of fellow pupils, the values of the peer group, and the performance standards of the school. Moving children to schools outside their neighbourhood clearly produces some degree of disengagement from these factors, at least for the duration of the school day, but only for those who are moved.

Several studies have attempted to assess the effects of changing some of the pressures on the inner-city school child by moving him to suburban schools. Wilson's study showing the normalisation of divergent standards between schools drawing from different socio-economic status areas has already been mentioned. He also showed that pupils form low socio-economic status backgrounds who attended predominantly middle-class schools had a higher level of performance than similar children who attended predominantly working-class schools, though he pointed out that such differences may be the result of ' self-selection ' by brighter families from poor areas who have moved to better districts (Wilson, 1960). The Coleman study demonstrated the effect of pupil characteristics on achievement level, and found that it explained more variation in achievement than any other school-based characteristic. Students from minority racial groups who attended schools with a high proportion of white students tended to show higher patterns of achievement : the effect appeared to increase at higher grades, suggesting that it was more a result of attending an integrated school than any prior difference in background. The study's findings ' that the apparent beneficial effect of a student body with a high proportion of white students comes not from racial composition *per se*, but from better educational background and higher educational aspirations that are on the average found among white students ', indicate that there may be equal academic grounds for integration on a social class as well as racial basis.

Each of the three strategies—strengthening the learning situation, extending the responsibility of the educational process, or changing the social composition of the school—takes a particular stance in relation to the problems facing education and the research evidence about ways of reaching the objective of improved school performance. It should be noted that at the very general level at which these strategies of action have been distinguished there is no necessary opposition between the approaches. Evidence can be assembled to argue that any one might prove effective ; for the prescriptions of research at this level do not lead to specific answers. To adopt one approach does not entail the denial of another, though given limited resources one strategy may show a better return. Several writers discussing the definitions of ' compensatory education ' and ' the disadvantaged ' have appeared to suggest or assume that these strategies are opposed to or exclusive of one another. There is no education that they are necessarily in conflict.

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The aims of special educational programmes for the poor have often been ambiguous, fluctuating between strictly educational objectives and wider social goals. Yet the relationship between improved educational standards and change in other social institutions remains unclear ; it is the central issue for those who try to achieve general social improvement purely through educational programmes. Though a few have proposed that such pro-

grammes should encourage a diversity of standards, the majority have accepted that the main objective is to close the gap between the disadvantaged and normal populations in conventional areas of educational performance. There are three possible ways of achieving this objective through education ; by extending and strengthening classroom practices, by widening the influence of education beyond the school, or by integrating schools so that the concentration of problems in the inner city school is reduced.

C. Concepts

We have kept this discussion of concepts to the final section of this chapter. In one sense, everybody knows which groups are being referred to when phrases such as ' the underprivileged ', ' the deprived ' or ' the disadvantaged ' are used. And if by ' compensatory education ' is meant merely special programmes to help these groups, then there is little problem about its meaning. In fact, the issue is far less clear-cut. The rapid development of compensatory education demonstrates how the meaning of such phrases evolves and changes as new theories come into use and previous assumptions are challenged. The uneasy relationship between groups who are to be served by the programmes and wider society itself increases the uncertainty about the meaning of many terms used to identify such groups, and about the exact type of project to be included under the heading of ' compensatory education '.

Two reasons for this uncertainty can be isolated. In the first case, most of the phrases adopted have implicitly or explicitly depended upon a theory suggesting why the particular problem existed. Often these theories do not stand up to close examination, as was seen in the case of the ' poverty cycle ' ; this stressed the psychological determinants of poverty and tended to ignore the social and economic factors that prevented the poor from advancing. As such theories are abandoned or modified, there is a rapid turnover of phrases and concepts.

Secondly the labelling or identification of groups on social criteria has an important ' public relations ' aspect. In the case of the ' disadvantaged ' and ' compensatory education ', this can be visualised as a three-cornered exercise. Those who argue in favour of new programmes of social action have to convince others of the need for general concern and therefore new resources. The use of new terminology plays the role of signifying change in social definitions. For example, to distinguish the ' deserving ' from the ' undeserving ' poor is both to press for sympathy and support for a particular group, and at the same time provide reasons why such support should be given. Similarly, many of the phrases connected with compensatory education can be interpreted as ways of eliciting concern by pointing to the social rather than individual responsibility behind educational failure in depressed areas. One cannot blame a child for being ' educationally disadvantaged ' or ' culturally deprived '. Where ' poverty ' remains an individual stigma, it is perhaps inevitable that those who seek to alleviate it by special programmes will try to emphasise by the use of new terms that poverty is a product of social conditions rather than individual incompetence. Yet the third party involved, those who are to be served, may naturally resent being identified in this manner, particularly where their own institutions or way of life are picked out as the prime reasons for the low educa-

tional performance of their children. As programmes require the cooperation of this group, there is pressure to generate further terms which attribute blame elsewhere, for example on the educational system or wider society. This interplay has produced few clear-cut definitions. It seems unlikely that any close investigation of how the terms have been used would reveal any precise set of references, though an outline of their development and how they are to be used in this study is required.

i) *The Disadvantaged*

The term ' disadvantaged ' is probably the most widely used at present to refer to populations to be served by special programmes ; the apparent neutrality of the term and lack of any precise meaning probably encourages its use. ' Disadvantaged ' implies little about the responsibility for the situation, whether it is some characteristic of the ' disadvantaged ' group, or some failure in the institutions of wider society. By adding prefixes such as ' culturally ' or ' educationally ' disadvantaged, these causal links can be made more specific. The term, however, does suggest some generally acceptable criteria by which ' disadvantage ' or ' advantage ' can be assessed ; where these criteria, for example educational performance, are known to be closely associated with the way of life and institutions of the group involved, certain underlying assumptions of the term ' disadvantaged ' are exposed and its apparent neutrality brought into question. As the term has become linked to a particular viewpoint about the cause of such ' disadvantage ', it has become increasingly unacceptable to the groups at which programmes are aimed.

Fantini and Weinstein (1968 *b*) have aided this process, by using the term ' disadvantaged ' to cover middle-class suburban children who find the school curriculum as out of step with their needs as do children in the inner city. In this way they have challenged the assumption by which the term ' disadvantaged ' is only applied to inner-city children from poor backgrounds, racial minority groups, and the rural poor both black and white who provide the source for new city ' inmigrants '—the ' economically disadvantaged '. By including children from relatively affluent families, Fantini and Weinstein imply that the cause of ' disadvantage ' lies not only in the poor home which prepares the child inadequately for school, but in the ' hidden curriculum ' of the home, whether in the inner city or suburb, which conflicts with curriculum content and method in the schools. By extending the reference of ' disadvantaged ' in this way, Fantini and Weinstein expose some of the assumptions by which the phrase is conventionally restricted to the poor.

Other terms which have been used to identify groups to take part in the programmes have more explicitly suggested some theory about how the situation developed. Phrases containing the word ' cultural '—' the culturally deprived ', ' the culturally disadvantaged '—as Mackler and Giddings (1965) point out, were often a means of belittling the culture of minority ethnic groups, without any precise analysis of which cultural elements were responsible for educational failure. A danger of such terminology is that programme content will be shaped by reference to such vague phrases as ' cultural deprivation '. The ' cultural enrichment ' element in the large-scale Higher Horizons programme which ran from 1959 to 1965 in New York City appears to have been based on an analysis of this type. The culture

included in the programme, as Riessman (1962) notes, was often ' high culture '. Goldberg (1967 *b*) cites Deutsch (1960), ' the more constricted an individual's social frame of reference and the greater its distance from the cultural mainstream, the less meaningful and the less effective are the dominant cultural values which impinge on him in the schools and the other social institutions ' ; she suggests that the programme of visits in Higher Horizons may have had little relevance for the ghetto child. She questions the ' anticipated carry over from cultural exposure to improved academic performance '.

Though it has weaknesses, we intend to retain the term ' disadvantaged ' to identify groups served by special programmes. It is suggested that the criteria for identification should be socio-economic, to reduce any implication that the term may have when linked to educational or cultural characteristics. ' Disadvantaged ' will apply to groups who fail to benefit in improved social and economic conditions. Relatively objective criteria could then be put forward to define these groups more closely in terms of income, housing, and so on. Several of the federal programmes, for example Title I, used criteria of this kind to decide how to allocate programme funds. The reasons for retaining the term ' disadvantaged ' rather than using ' poor ' throughout this study are (*i*) its general use in the American literature, (*ii*) its suggestion that poverty is a relative position, and (*iii*) its implication that economic poverty is associated with a number of other ' disadvantages '. Restricting the term in this way means that the wider reference of Fantini and Weinstein covering middle-class groups is excluded, though this does not detract from the analysis of educational disadvantage that they put forward.

The identification of a group on socio-economic criteria and the use of this concept as a way of selecting children to take part in special educational programmes raises a number of further issues. As Marris and Rein (1967) point out, education only covers a limited area of the problem ; the school leaver, the low-wage earner and the elderly ' disadvantaged ' are in no way affected. There is a gap, too, between the socio-economic criteria used to distinguish the disadvantaged and the reasons for low educational performance. The poor do not all have a below average attainment level. Many American participants at the New York conference emphasised that the term used to identify groups at risk had come to be used by teachers as an easy way to explain educational failure—' they fail because they are culturally deprived '.

In the previous section we outlined the general position of children from disadvantaged backgrounds on tests of ability and school achievement, and we referred to the pattern of ' cumulative deficit ' whereby their average score, in standardised terms, tends to deteriorate at higher age levels. As special programmes developed, research has extensively documented these inter-group differences on educational measures, and begun to map out some of the characteristics that are associated with poor educational performance. Many studies have investigated the abilities of the children prior to school entry in an attempt to trace the origin of such differences. They have suggested that differences in performance between social groups were found as early as tests of intellectual development could be reliably used. However, Bayley (1965) report that in the first fifteen months of life her studies revealed no differences between ethnic groups on test items designed to assess mental development.

It is only possible to indicate some of the research developments that have taken place. Studies collected by Hellmuth (1967) give a more comprehensive picture. Gray and Miller (1967) review a number of studies investigating elements in the child's early experience which may be responsible for differences in cognitive development. Freeberg and Payne (1967) outline recent research on the effects of parental influence on such development. Zigler (1968, 1970) groups research studies on child development according to the type of explanation they have given to explain different rates of growth. He suggests the need for a more complex theoretical approach linking early experiences to the developing cognitive structures of the child, instead of trying to explain differences in development either purely by reference to external events or by maturational processes. Jensen (1969 *a*) reviews a wide range of studies on the differences in performance between the ethnic groups and social classes.

Such studies have extensively catalogued the areas of educational difference between disadvantaged groups and the general population. They lead Bereiter and Engelmann (1966) to go so far as to claim that ' with no known exceptions, studies of three to five year old children from lower socio-economic backgrounds have shown them to be retarded or below average in every intellectual ability '. Rather than list the skill areas in which disadvantaged children have exhibited apparent deficiences, reference will be made to studies that have influenced the approach of particular projects as they are outlined in the chapters to follow.

It is important to note that the evidence for ' skill deficits ' is primarily derived from educational tests. The monotony with which such tests have indicated a lower performance by children from depressed areas, has revived the suspicion among some that the tests and test conditions are weighted against disadvantaged children. Such tests emphasise the weaknesses of the disadvantaged, but fail to bring out their strengths. Programmes which aim to remedy these ' skill deficits ' may be based upon the incorrect assumption that disadvantaged children are in fact retarded in these skills. What happens is that they perform badly on tests and within the unfamiliar school environment. The problem with this approach is that it rejects conventional methods of assessment, the evidence of tests and the observation of many teachers, but fails to provide alternative methods. Tests and teacher assessment are likely to reflect the dominant values of the educational system for individual achievement and academic skills, and in a sense to be biassed against groups who place greater weight on different values. Those who reject the evidence of tests are in effect arguing against the present objectives of the educational system. But, as we saw in the previous section, alternative objectives are not as yet clearly worked out. There may be good grounds for not taking test evidence about skill deficits at its face value, without considering the effects of test conditions and more widely the social situation within which such tests are conducated. It is known that both these factors can markedly affect test results (Katz, 1967).

Despite a growing body of information on the intellectual ' deficits ' of the disadvantaged, there is less certainty about the interrelationship of skill areas which would aid the design of educational programmes. Without further knowledge of these linkages, there is a risk that programmes will seek to remedy some apparent ' deficit ' which is itself a byproduct of some more basic problem. For this reason, many programmes have emphasised skills of language, on the grounds that they play an important role in the

development of other skills. Yet language itself is composed of a number of skills, some of which may be more basic than others ; and there may be further processes preceding these language skills, which are themselves inadequately developed in the disadvantaged child. Professor Zigler (New York Conference) pointed out the importance of motivation as a factor in performance. Experimental studies (Zigler and Butterfield, 1968) have demonstrated the effect of these factors on test performance : considerable gains were achieved purely by manipulating the test conditions so that the child's motivation to take the test was increased. Jensen (1969 *a*) reports similar changes when test conditions were made less forbidding. Gordon (1969) suggests that improvements in motivation may lead to an increase in cognitive skills.

More detailed studies of educational performance and related factors in the child's background have turned attention, as Jensen (1967) notes, to social psychological aspects rather than general socio-economic conditions to explain variations between groups. Initially it was suggested that the disadvantaged child might be ' stimulus deprived '. Comparison was made between the behaviour of animals reared experimentally in conditions of extreme deprivation, for example without light, and that of disadvantaged children. Actual study of home conditions in depressed areas quickly indicated that the problem was not so much ' stimulus deprivation ', as of a mass of stimuli presenting little variety, and often in conflict with one onother (Gray and Klaus, 1965). The parent-child relationship and the style of communication used clearly played a central role in the child's home experience. Hess and Shipman (1965, 1968) and Olim, Hess and Shipman (1967) have examined details of mother-child communication styles and their relation to the test performance of children. They argue that the problem is partly the lack of ' cognitive meaning ' in the communication between mother and child, and partly the result of family control mechanisms which tend to offer ' predetermined solutions ' and few choices of action. In their study, they found that mothers from lower socio-economic status groups used a more restricted form of communication in describing pictures to their children ; they tended to outline behaviour patterns for their children in a normative way—by reference to phrases such as ' it's what we all do '. This study followed Bernstein's work on the ' restricted ' and ' elaborated ' codes of language held to be typical of different social groups. In a similar way, Bernstein has carried his work further (Bernstein and Young, 1967 ; Bernstein and Henderson, 1969) to illustrate areas in the mother-child inter-action that affect educational performance. In general, these studies of communication styles indicate that measures of these variables give a more reliable prediction of a child's educational performance than socio-economic position alone.

The concentration on the cognitive ' deficits ' of children identified as disadvantaged on socio-economic criteria underlined two possible risks involved in developing educational programmes for these groups. The first was to treat the disadvantaged as if they were a single group, overlooking the fact that the evidence was derived from studies of particular groups ; clearly within the category defined as disadvantaged there are considerable differences between groups, for example in language and family structure. Another major problem was stressed by Professor Zigler (New York Conference) ; he pointed out that the ' deficits ' were the result of aggregate characteristics : within any group, there was likely to be considerable variability

of performance. A programme founded upon the ' deficits ' of the group in general might turn out to be quite inappropriate for a number of individual children. Professor Zigler pointed out the gap between identifying groups at the socio-economic level and the individual diagnosis required at classroom level. A finding reported by Dickie (1968) illustrated Zigler's point. In a comparison of structured and unstructured preschool work, she found that children high in verbal ability tended to gain more from unstructured work, whereas those with a low level of verbal skill responded better to the structured course. Different methods of analysis might well show individual differences in response to the same programme.

This gap between the socio-economic and social psychological levels of analysis and the problems of individual differences within any group identified as ' disadvantaged ' suggests further areas of investigation. At one end there is the problem of relating differences in home characteristics to wider social conditions, and at the other the difficulty of fitting compensatory programmes to individual differences within disadvantaged groups.

ii) *Compensatory Education*

The term ' compensatory education ' was used initially to cover a wide range of action and intervention research projects aimed at groups distinguished on socio-economic rather than educational criteria. Whether this educational disadvantage was assumed to be primarily the result of home background factors or of inadequate or inappropriate school facilities for the group in question, was not at first a critical issue. Pearson and Plant in their introduction to Gordon and Wilkerson (1966) define compensatory education to cover both possibilities—' programs of special and extra services intended to compensate for a complex of social, economic, and educational handicaps suffered by disadvantaged children '.

As Sigel (1969) points out, the normal meaning of ' compensate ' is ambiguous enough to include both types of disadvantage : where the problem is seen to lie in the intellectual ' deficits ' experienced by the disadvantaged child, educational programmes designed to compensate for or ' counterbalance ' these deficits will form the main component of ' compensatory education '. ' Compensate ' can also mean ' make recompense for '—a definition that allows for the idea that the disadvantaged are the victims of an unequal educational system. In this case ' compensatory education ' is a form of reparation for previously unequal treatment.

' Compensatory education ' has come to be identified with the approach that attributes the problem to the intelletual deficits of the learner and seeks to develop school-based programmes to improve the skill areas in question. When critics talk about the ' failure of compensatory education ' it is to this approach that they are generally referring. The lack of immediate success from compensatory programmes has encouraged the search for different approaches that may prove more successful. It is perhaps inevitable that those who favour new approaches should contrast them with what has gone before. The three general strategies we distinguished in the previous section, changing the learning situation, altering the relationship between school and community, and integrating schools, have been compared for their effectiveness in solving the problems of the disadvantaged. In these comparisons ' compensatory education ' has generally been restricted to curriculum and classroom changes, and contrasted with ' integration programmes ' and what

might be called ' community education '—increased parental and community involvement in education and in school organisation and control.

The study *Racial Isolation in the Public Schools* (US Commission on Civil Rights, 1967) examined the effects of a number of ' compensatory programmes ', that is changes in schools that did not involve integration. Three of these, the Banneker project in St. Louis, the Higher Horizons project in New York, and the All Day Neighbourhood School Program also in New York, were examined in detail. All three were shown either to have made little impact on pupil achievement or not to have made any lasting improvement. In a further twenty studies not reported in detail, the Commission states that ' in most instances... the data did not show significant gains in achievement '. A further four studies were examined which allowed comparison with Negro students integrated into majority white schools. In all four studies Negro students attending majority white schools appeared to progress more rapidly than their counterparts who received ' compensatory programmes ' in segregated schools. The Commission concludes, ' that compensatory programmes are not likely to succeed in racially and socially isolated school environments. '

Others, for example Fantini (1969, and New York Conference), argue that both integration and compensatory education ignore a critical element in the problem of the disadvantaged. This is their relative powerlessness over the educational system, and hence alienation from its programme and goals. A strategy of compensation tends to operate on a basis of providing ' more of the same ', building ' additions ' on to the existing institutional framework ; it fails to produce fundamental change as the important features remain unaffected. Programmes of integration also fail to affect the power relationship ; in fact the belief that integration is the only effective method of improvement may perpetuate ' the dependent status of the Negro in American society ... by the notion that the only way to help the black child is to seat him alongside white children ' (Fantini, 1969). Fantini argues for more radical changes ranging from the development of a more community-relevant curriculum (Fantini and Weinstein, 1968 *a*), to the ' community control ' of school systems (Fantini, 1969).

If one restricts the term ' compensatory education ' to school-centred programmes, a damaging set of comparisons with alternative strategies can be assembled. Supporters of ' compensatory education ' meet this attack by claiming that those who put forward alternative strategies have selected a biassed sample of compensatory programmes, picking out failures. They can point to the success of small-scale projects, and argue that compensatory education has never been really tried (Goldberg, New York Conference). ' It *may* be that compensatory education is of little value, but this idea has not been tested in any adequate way up to now ' (Kagan, 1969).

The restricted definition of ' compensatory education ' that has developed is in part a construction of those who support an alternative strategy, and must attribute a very narrow approach to rival positions. At a theoretical level the three strategies represent very different analyses of the causes of educational disadvantage and the methods of solution. At a practical level, the differences may not be so marked, and one type of strategy merges into another. ' Parental involvement ' may be used to make classroom practices more effective ; it may also be used as a way of changing the relationship between a school and its community.

The risk of comparing the relative effectiveness of three strategies at

a general level on such criteria as educational performance is that the approaches will appear to be mutually exclusive without any clear conception of why this should be so. There are obvious points of conflict, for example in the idea of 'community'. In an integration programme, where there is still residential segregation, the catchment area of the school—the school's 'community'—will be very different from that of a neighbourhood school. 'Community-control' in this situation would be very different from 'community-control' where both school and community remained racially segregated. In the integrated school, special programmes for the disadvantaged might conflict with the aim of integrated classrooms; such programmes would cater primarily for those from depressed areas. It is also likely that 'community control', at least in its initial often disorganised stage, would make controlled classroom innovation hard to achieve.

There are indications, too, of more basic differences in orientation, in particular towards the selective functions of the school. Many have argued that the largest untapped 'pool of ability' should be among the socially disadvantaged. Jensen (1967) suggests that among children from low socio-economic status backgrounds who score 60-85 IQ points on a standardised intelligence test, there should be several capable of much higher attainment. A programme of compensation might be interpreted as a means of releasing this potential. Some of the early projects, such as the Demonstration Guidance Project, were overtly selective. Even where programmes have not selected children at entry, it is likely that a group programme will benefit certain children more than others. In this way the programme acts to promote individual mobility, in so far as higher educational performance contributes to mobility. There may be ways of levelling out the effects of any group programme by individualising the content, as for example in the Individually Prescribed Instruction Project in Pittsburgh (Lindvall and Bolvin, 1967), and the individual preschool language programme (Blank and Solomon, 1968), both described in the following chapter. Nevertheless the tendency for school-based programmes to act selectively, whatever the intention of their sponsors, is hard to deny.

The intention of the 'community-centred' programme is apparently rather different; for it is concerned with group mobility. Education here plays a rather different role; control of the local educational system by the community is seen as an important advance from the previous state of powerlessness and alienation, and a community-orientated curriculum may serve as a means of mobilising 'community consciousness' and pressure for change. At present, the experience with programmes of this type is probably too limited to indicate how successfully control over educational institutions can promote group mobility. It may be that such changes in control are more symptoms of group advancement than changes that in themselves promote such advancement.

Though there are differences and conflicts between the three strategies that we have identified, there are also points of overlap. For present purposes we propose to use 'compensatory education' as a label to cover the full range of programmes for the disadvantaged, rather than to limit it to school-based changes.

The phrases associated with educational programmes for the poor have often been vague and shifting in reference. New terms serve to indicate fresh approaches to old problems, but where they mark out one social group from another they have to be acceptable to those who are singled

out by their use. The educational characteristics of the disadvantaged have been extensively documented by research, and with increasing precision related to factors in the home background. But there is a risk in overstressing the 'intellectual deficits' of the disadvantaged. Evidence for them is primarily gathered from educational tests, and results may well be influenced by the social context within which such tests are administered.

The apparent failure of school-based compensatory programmes has led to greater emphasis on alternative methods. The term 'compensatory education' has come to be associated with school-centred change, and as a strategy compared with programmes of 'integration' or 'community éducation'. There are numerous points of difference and conflict among these three approaches, but there are also similarities. At a practical level a programme could contain elements of all three strategies. For this reason we use the term 'compensatory education' in its wide sense to cover all three strategies.

Having discussed some of the social changes linked to the development of compensatory education, the objectives of such educational programmes, and some of the terms used, we turn to look at some of the projects. As far as possible we have grouped them according to the three general strategies that we have set out, looking first in the following chapter at changes in the learning situation, and then in Chapter IV at changes in the relationship between schools and their communities. Chapter IV is subdivided into a discussion of projects that attempt to improve relationships between schools and their existing communities, what we have called 'community education', and those which try to alter the present situation by moving children to schools outside their own neighbourhood - 'integration programmes'.

Chapter III

CHANGING THE LEARNING SITUATION

Classroom and curriculum innovations for the disadvantaged could be grouped into several categories, depending upon their relationship with innovations in the wider educational system. There are innovations aimed specifically to eradicate the intellectual 'deficits' of disadvantaged children; such changes are not necessarily applicable for education as a whole. Some indeed might be received with hostility by middle-class groups. Then there are innovations which try to build on the strengths and interest of disadvantaged children; these again would not necessarily have wider application without extensive modification. Many so called innovations are merely the creation of facilities that already exist in other areas; only in depressed areas are they innovations. Finally there are genuine innovations that have relevance for education in general, but on a basis of 'positive discrimination' they are initially set up in depressed areas.

These distinctions underlie the discussion of particular programmes, though obviously many projects included innovations of several different kinds. Programmes designed to change the learning situation raise a number of separate points: (*i*) the most suitable age group to form the target population, (*ii*) the details of programme content and method at different levels of education, and (*iii*) the problems of increasing the quality and quantity of the teaching force in depressed areas. These topics will be covered in turn.

A. Age Group

Clearly the age group that is 'best' suited to intervention programmes will depend upon the type of project planned. A project for a community study curriculum to develop 'community consciousness' will obviously select a different age group from a programme designed to develop basic intellectual skills. Many curriculum innovations for the disadvantaged have started with a conception of intellectual 'deficits', or at least have accepted that their effectiveness should be evaluated on the criteria of improved pupil achievement. Discussion about the 'best' age-group for intervention has tended to focus on this aspect of intellectual development.

Though a few of the first programmes concentrated on the early teenage period, in an attempt to reduce delinquency and premature drop-out from school, the trend has been for intervention programmes to aim at increasingly younger groups. There appear to be three reasons for this emphasis. First, research has pushed down that age at which social class and ethnic differences on intellectual tests emerge to the limits at which such tests can be used. Dr. Shaefer (New York Conference) stated that children

in his home tutoring project in Washington DC appeared to have established their relative intellectual levels on intelligence tests as early as 21 months. The implication from this and other findings is that social class and ethnic differences in intellectual level develop in the 18-36 month period. This conclusion has been challenged by Kohlberg (1968) ; he suggests that the lack of evidence about group differences in intellectual ability below 18 months may be the result of using tests that do not pick up critical differences between groups at this age level. The differences are there, but they cannot be reliably measured by tests. Whether such differences in intellectual development emerge at about the 18 month period or earlier, there are strong grounds for arguing that the best point of intervention is where the gap is smallest. Later intervention inevitably becomes a form of ' remediation '—trying to make up for lost ground.

A second argument for early intervention derives from the apparently different rates of intellectual development at different age points. Bloom (1964) analysed a number of longitudinal studies of child development from early childhood to late adolescence. He showed that these revealed an extremely consistent pattern of development. Taking measured intelligence at age 17 as the point beyond which measured intelligence rises only slightly, he demonstrated that tests conducted at earlier age levels produced increasingly good predictions of the position at age 17 : as early as age one, 20 per cent of the variance shown on test score at age 17 could be predicted ; by age 4, this had reached 50 per cent ; by age 8, 80 per cent ; and at age 13, it was 92 per cent. As Jensen (1969 *a*) has pointed out, it is not possible to conclude from the increasingly close correlations at higher ages the *amount* of intelligence that has developed at any particular age point. The findings indicate that by the time children enter school, a fairly higher degree of stability of relative intellectual position over time is to be expected. Bloom concludes that the early years where the variability in intellectual level appears to be at its highest should offer the best point for intervention.

There was in addition the evidence of the effects of early deprivation on later development from experiments where animals were reared in special conditions (Hunt, 1961). If such early conditions could retard later development, it seemed possible that a rich environmental experience could promote development. Where children were reared under poor environmental conditions, their development appeared to be far below normal (Dennis, 1960), but where there had been change from poor conditions to a more stimulating environment, and this had occurred in the early years, a more satisfactory level of advance was achieved and maintained (Skeels and Dye, 1939 ; both studies quoted in Hunt, 1961).

Another incentive for concentrating on the early years has been the lack of facilities for this age group, particularly in depressed areas. As Professor John (New York Conference) pointed out, this provided a chance to create new programmes that took more account of the needs of the disadvantaged. The setting up of new institutions such as Head Start centres meant that new relations could be created with parent groups. It was easier to get parental involvement in new institutions than to restructure existing institutions which had rejected parental contact in the past. There were indications that parental involvement was more easily achieved with preschool children.

Taken together, these factors have ensured that preschool work has received the largest resources in both action and research terms. Besides

the federally sponsored Head Start programme, covering about 500,000 children in its first year of operation, there have been preschool programmes funded under the Title I legislation of the Elementary and Secondary Education Act, 1965, as well as a number of special research programmes catering for small numbers of children.

Other writers have suggested alternative approaches to the age at which intervention programmes should occur. Smilansky and Smilansky (1967) argue in favour of 'critical periods' when changes in performance can be most easily achieved; they isolate the preschool period, early adolescence and the 19-21 years group as the most likely points at which intervention programmes will have the most effect. The suitability of any age point must relate to the type of programme. There are indications that gains in academic achievement can be made by disadvantaged students as they approach college level: for example, the 'College Bound' programme in New York achieved a four month gain in seven weeks for reading, and in maths gains equivalent to one year were recorded in the same period. Elkind (1969) has suggested that Bloom's argument about the early rate of development could be used to justify delaying programmes until the child's full ability level had been reached: at this point presumably academic achievement would proceed very rapidly. Attempts, however, to evaluate the effects of delaying the teaching of particular skills such as reading have often met with opposition from teachers and parents.

As evidence began to accumulate about the effects of preschool work, both in the short term and in follow-up studies after preschool children had joined full-time schooling, a number of modifications have been developed in the interpretation of theories about early intervention. Results demonstrated that though gains were generally made during the course of the programme, these were often not maintained far into the elementary school.

Some have argued that the type of preschool programme set up did not reach children early enough; they were already 'remedial' in character. Earlier intervention still was required. Weikart (1967 *a*) suggested that home-visiting programmes might be a way of influencing development at an earlier period. Dr. Shaefer, however, (New York Conference) reported that the gains in his home tutoring project for children from 18 months to 3 years had not been maintained once the programme had finished. The finding was supported by other studies. Shaefer suggested that there were strong arguments for developing some kind of 'parent-training' programme at school level, rather than relying on programmes of very early intervention with young children.

A second line of modification has been to take a more pessimistic attitude to the evidence presented by Bloom for the early rapid development of intelligence. Kohlberg (1968) has expressed caution about relating the results from tests used in the early months to later more sophisticated measures of intellectual functioning. Group differences that emerged on the second set of tests might either indicate that the differences had emerged in the intervening period, or that the earlier set of tests had failed to detect them. Kohlberg points out that the differences that emerge in the early years are not necessarily environmentally determined or remediable by educational programmes. The importance of the inherited element in intelligence has been stressed by Jensen (1969 *a*); he argues that the increasing stability of intelligence at higher ages, rather than indicating the

effects of environment demonstrates that 'the genetic factors laid down at conception are increasingly realised in the individual's performance as he approaches the asymptote of that performance' (Jensen, 1969 *b*).

A third approach to the problem of maintaining gains made at pre-school level has turned to the effect of subsequent educational experience. As Gray and Klaus (1966) point out, preschool programmes 'can only provide a basis for future progress in schools and homes that can build upon this early intervention'. They suggest that Negro children who had attended their Early Training Project preschool were more likely to maintain development if they subsequently attended a racially integrated school. Weikart (1967 *b*) from a study of a number of preschool programmes indicates that the decline at school level varies from area to area and can be partially explained as an effect of later schooling. Professor Gordon (New York Conference) drew attention to a finding in a report on Head Start centres in New York city (Wolff and Stein, 1967). Where children from Head Start had joined a school class with a sympathetic teacher, the gains were maintained; where school teachers were poor, children from Head Start tended to regress to lower levels than when they began pre-school. The authors conclude, 'Head Start advantages can be maintained only if the level of teaching and the curriculum in the kinder-garten are strong. It implies the opposite as well—that more damage is done to the child who looks forward eagerly to an educational program he has learned to enjoy than to the child who has had no previous knowledge of what to expect, if the later school experience is poor'. Wolff and Stein also stress the importance of making sure that all children in a school entry class have had preschool experience, to allow teachers to build on this rather than to spend time concentrating on children who have missed out at the preschool level.

A fourth response to the equivocal results of preschool programmes has been a more critical approach to programme content and its suitability for disadvantaged children. This issue will be looked at in the section on preschool programmes.

The idea that early intervention alone could provide a solution to the problem of the disadvantaged, by providing a short intensive period of stimulation leading to a subsequently normal rate of development, is shown to be a major oversimplification of the issue. Gains achieved at an early age do not seem to be maintained independently of later experience. There is need for continuing support.

Despite these modifications, which suggest that the importance of early intervention should be approached with more caution than was the case immediately following the work of Hunt and Bloom, there remain good arguments in favour of early intervention. Programmes must be sustained to make lasting impact, or alternatively influence other institutions that relate to the child, in such a way that programme effects are maintained. If parental involvement in education is more easily achieved at preschool level, this alone could be adequate grounds for early intervention; for sustained change in the child's home environment might result from the right kind of parental involvement in preschool educational programmes.

The need for early and sustained intervention raises the problem of extending enrichment programmes into normal school. To further the effect of Head Start programmes at preschool, continued programmes of enrich-ment termed 'Follow Through' are being tried out in the elementary grades.

The importance of early intervention does not rule out the possibility that programmes for different age groups, particularly where these focus on school achievement, can be successful. One of the major reasons why programmes for higher age groups have in fact proved less successful than programmes for young children may well be the influence of social factors, rather than any basic developmental reasons. At higher age levels, programmes increasingly have to combat the lack of interest in school type work ; their main thrust has often been to promote this interest and stimulate attention, and less to build up particular skills. It is perhaps relevant that successful programmes with higher age groups have often been concerned with college entry programmes, or courses leading to some form of academic qualification (Kaufman and Lewis, 1968). Both provide a meaningful goal for students to work towards. In contrast many programmes for such age groups often set keeping students in the school system as their main goal. The success of programmes for these age groups may thus depend more upon the development of suitable ' institutional climates ' where the objectives of the course are acceptable to the students concerned, than on particular educational techniques.

The case for early intervention to develop intellectual skills was based on research evidence that differences in mental development between social and ethnic groups could be traced back to the preschool years. There was evidence, too, of the rapid development of intelligence at this period. Parental involvement was more easily achieved in the new institutions set up for preschool education. Though gains in performance achieved at preschool are often not maintened far into the elementary grades, there are still strong arguments for early intervention. But it will have to be sustained for longer periods and reinforced by changes in the child's experiences at home, perhaps by parental involvement in educational programmes. Others have suggested that programmes for later age groups can be equally successful, if the right kind of ' climate ' can be created. Programmes aiming towards some form of terminal qualification have been successful in raising standards of school achievement at a rapid rate.

B. Programmes : content and method

i) *Preschool*

The Head Start Programme

The high expectations that accompanied the setting up of the Head Start programme in 1964-5, reflected the optimistic climate of opinion at that time on the effects of early intervention. Preliminary findings from a few experimental preschool projects of significant gains in intellectual functioning seemed to support the theoretical position of Bloom and Hunt. Funds for the programme came under the Economic Opportunity Act of 1964, and were channelled through the Federal Office of Economic Opportunity—itself set up to administer programmes forming part of the ' War on Poverty '.

The initial phase of the programme, in the summer of 1965, was the opening of 'child development centers ' in poverty areas throughout the country, to provide eight weeks of summer preschool for four and five year old children. At local level, the centres were administered by a range of

agencies, local school boards, and religious organisations, as well as community action groups often established specifically to run Head Start centres. The Westinghouse Report (Cicirelli *et al.,* 1969), which examined a sample of 104 centres, found that slightly more than half were run by public schools, about 35 per cent by community action agencies and the rest by religious and voluntary bodies. The majority of the centres were actually in schools, the rest being in community buildings, churches, and private houses.

Demand for Head Start centres far exceeded expectation ; in the first summer programme, more than 560,000 children were enrolled in about 2,400 different communities, and a staff of 184,000 paid and voluntary workers was recruited (McDavid *et al,* 1967). There were very favourable staffing ratios of one trained teacher for 15 children and often one adult to five children. The total cost of the summer programme, including both federal and local contributions, amounted to about $ 195 million (White, 1969). In subsequent years the summer programme has remained about the same size, but there has been increased emphasis on full year programmes. Initially, as year long facilities were difficult to establish, only about 20,000 places were available in 1965. By 1967, however, 215,000 children were enrolled in year long groups : including both summer and full year centres, more than 13,000 such centres were estimated to be in operation. The annual cost of the programme was about $350 million.

As Smith and Bissell (1970) point out, centres varied greatly in the levels and quality of staffing and in their methods of recruiting children. In the first summer, many of the staff had little experience of preschool work, apart form an initial six day training course. In 1966, ' one-third of these teachers had no previous preschool teaching experience. Over 20 per cent had no previous experience working with disadvantaged children ' (Smith and Bissell, 1970). There was also variation in methods of recruitment ; ' some centres select the poorest and most severely disadvantaged children and families. Other centres serve families who come forth voluntarily ' (Smith and Bissell, 1970). As the programme became more well known, it is claimed that it has been more effective in recruiting children from hard-core poverty areas. Using an index of family size as a measure of economic poverty, it has been shown that a higher proportion of the children enrolled in 1966-7 came from large families than had been the case in the previous year (McDavid *et al,* 1967).

From the outset of the programme, the conception of a ' child development center ' has been much more than purely a place for preschool education. White (1969) identifies six elements—' (1) an educational program ; (2) health services, to provide medical diagnosis and treatment ; (3) social services, aid to the child's family ; (4) psychological services ; (5) nutrition ; (6) parent participation '. Head Start centres have provided an opportunity for early medical diagnosis of physical defects and for extensive preventive work. Usually two meals are included in the daily programme. Several projects have developed parent and community participation so that the programme becomes a base for general community development. Though these other elements have played an important role in the programme, and there have been some obvious successes, the educational aspect has received the most attention. It is this aspect on which most evaluation studies have concentrated. It has been argued that objectives such as medical and nutritional improvement should be seen as ' instrumental ' to the strictly educational objectives of the programme, and

that success of the programme must depend on its educational effects (Evans, 1969).

The size and rapid growth of the Head Start programme meant inevitably that the educational content and method generally followed the established approach at preschool level, as this was most familiar to the teachers. The Educational Testing Service's evaluation of Head Start in the summer of 1966 revealed that a majority of centre directors preferred ' a supportive, unstructured socialization program, rather than a structured program ' (quoted in Smith and Bissell, 1970). Similarly in the Westinghouse Report, centre directors stressed the importance of child initiated activities, role play and creative activities. Language development, fine and gross motor activities, knowledge about health and safety, and other social skills were also emphasised. Asked to define their curriculum activities, directors generally rejected a custodial role, selecting ' environmental enrichment ' in preference to such descriptions as ' structure drills ' and ' responsive environments '. A majority accepted the term ' Montessori ' to describe their curriculum.

Attempts to introduce a more formal and structured approach to the curriculum with programmes designed specifically to develop particular skills were apparently rejected at the outside of the programme (Pines, 1969). The Head Start teachers' manual describes a daily programme of unstructured activities, followed by outdoor play, and preparations for the midday meal. Emphasis is on free choice of activity, with adult support rather than direction : self-expression and self-direction are underlined as a value of this approach ; and reference is made to natural, spontaneous learning from self-chosen activities (Project Head Start, Daily Program, OEO Washington DC, 1967).

Different approaches are found. The Educational Testing Service's evaluation study found that a minority of centre directors accepted the statement, ' it is through organized and systematic stimulation, through a structured and articulated learning program that a child is best prepared for the demands of school ' (quoted in White, 1969). A few centres have experimented with more structured training programmes specially developed for disadvantaged children, for example that of Bereiter and Engelmann (1966). A finding from the Westinghouse Report indicates that interest in the ' Montessori approach ' to preschool work is being revived. Possibly this is seen as a middle option between the traditional free activity and more formal structured training programmes.

The scale and rapid development of the Head Start programme, as well as its decentralised methods of organisation, ensured that there was considerable variety at ground level. Different types of organisation administered centres in their own particular way, and there was variation in the curriculum that was used. Accommodation, the quality and number of teachers, and the length of times the programme operated were not necessarily uniform from centre to centre. It is not surprising that attempts to draw overall conclusions about the effects of the Head Start programme have often been inconclusive, even though many evaluation studies have been restricted to the intellectual effects of the programme and to a lesser extent on aspects of social and emotional development.

A large number of small scale evaluation studies have been made of the education effects of Head Start in particular areas. Because of the various methods of recruitment followed by Head Start centres, these studies

have often experienced difficulties in finding for comparison a matched group of children who did not experience a preschool programme. The Westinghouse Report suggests that this problem of forming a genuinely matched control group should lead to caution in interpreting the findings of a number of such studies. And the degree of variation from area to area makes generalisation from the study of one area possibly unreliable. Reading across these studies, the Westinghouse Report cautiously indicates that 'some upward displacement of scores does transpire throughout the period of the Head Start program itself'. Measures employed were generally of cognitive development, though some studies also reported the use of affective measures as well.

Gordon (1969) suggests that three general conclusions can be drawn from the follow-up studies of Head Start children as they enter school. During the first year in school, the non-Head Start group tended to make more rapid progress, though they had a lower starting point. The Head Start group often managed to retain an overall advantage on cognitive measures. Both groups continued to score well below middle-class norms. The Westinghouse Report, while noting that statistically significant gains have been made and retained in some instances, finds that gains of the size recorded may have little practical educational significance.

More extensive studies of the effects of Head Start have reported similar small gains at the conclusion of the programme. The Educational Testing Service's study found an average gain of $4\,^1/_2$ IQ points on the Stanford-Binet intelligence test for children in the 1966 summer programme (Smith and Bissell, 1970). A study of full year programmes in 1966-7 conducted by the Institute for Educational Development (Cline and Dreyer, 1968) found a similar level of change, of about four points on the Stanford-Binet. As there was no comparison group for this study, it is not clear how far this change reflects a 'practice-effect' in test-taking as distinct from a genuine gain. Also the study is not intended to provide a general evaluation of the overall Head Start programme; the sample of centres was designed so that the effects of variability among centres could be analysed.

The Westinghouse Report has provided the most detailed information about the sustained effects of Head Start programmes, both full year and short summer projects. This study formed part of a large research effort, and was restricted in its findings to the overall effects of the programme on the cognitive and affective development of children in Head Start. Time limitations did not permit any testing of the children involved before they joined Head Start programmes; instead comparison was made between children up to grade three in school who had experienced Head Start in a national sample of Head Start centres, and children in similar classes matched on a number of characteristics who had not been in the programme.

The overall findings of the study suggested that the summer programmes had little sustained effect; in general no difference could be distinguished between Head Start and non-Head Start children. At grade one children who had attended full year Head Start programmes were slightly ahead on aspects of school readiness. At grade two there were no significant differences on school achievement. In language development there were generally no significant differences, though children from full year programmes at grade two were superior on two subtests of the measures used. In the affective measures, generally no significant differences

were identified. Examination of the effects of Head Start programmes in a number of sub-groups of the national sample indicated that certain groups scored significantly higher than controls on certain subtests of the cognitive measures used : these findings were for children from centres ' in the south-eastern geographic region, in core cities, or of mainly Negro composition ' (Cicirelli, *et al.,* 1969).

The disappointing nature of the Westinghouse findings has prompted a number of methodological criticisms of the study. The findings are not out of line with previous small scale studies, which have indicated limited and unsustained improvement following participation in Head Start. Smith and Bissell (1970) have suggested that the task of evaluators should be to seek out Head Start centres that were effective, rather than assess the overall effect of a programme which was known to vary from centre to centre. They argue, too, that the broad educational approach adopted by most Head Start centres would tend to lessen the chance of gains being picked up by cognitive tests. Yet no significant differences were observed on the measures of affective development used in the study, even though the traditional emphasis on social and emotional development might be expected to produce gains in this area. It may be that these measures are less reliable than those assessing cognitive development, but as White (1969) points out it is the necessary to believe in some kind of ' dormant ' programme effect, where change in affective development is followed at an interval by cognitive advance. There is no clear evidence that this has occurred as a result of Head Start programmes.

The evidence of Head Start demonstrates that dramatic changes in educational performance are not likely to result from broad based short term preschool programmes. If intellectual development is seen as the most important outcome of preschool for the disadvantaged, then clearly alternative forms of curriculum will have to be tried out. At the same time as Head Start came into operation, experimental preschool programmes were demonstrating repeatedly that highly structured programmes could achieve quite dramatic results in the short term. The most likely result of such studies as the Westinghouse Report may be to increase the pressure for Head Start to adopt similar approaches. The effects of Head Start on changes in other areas, in parental involvement, child health and so on are harder to assess ; inevitably the comparatively clear-cut results from measures of educational performance are seen as the main indicators of success or failure. This is perhaps unfortunate at a time when the success of expimental preschool programmes in producing substantial gains is being re-examined as the evidence grows about the long term effects of such programmes.

Experimental Preschool Programmes

Weikart (1967 *b*) has distinguished three different types of preschool curriculum : the ' traditional ', ' structured ' and ' task-oriented ' methods. Generally, Head Start centres adopted the ' traditional ' approach, though it was hoped that intellectual as well as social and emotional development would be the outcome. A few experimental projects have set out to assess the effects of the traditional approach under favourable conditions of operation ; the results, at least in terms of intellectual development, are not encouraging and there are reports showing that no significant change was

achieved on one of these projects (Alpern, 1966). Experimental projects have focussed more on the ' structured ' and ' task-oriented ' approaches, often using the ' traditional ' method as a benchmark or control to assess the relative effects of the programme.

Analysing the elements in the traditional approach, Bereiter and Engelmann (1966) suggest that many of its features are determined by middle-class needs. There is an emphasis on social mixing and cooperation with other children, on independence from adults, fantasy and role play, creative and artistic skills, adventurous physical activities and so on. The child from the relatively isolated middle-class home may be deficient in many of these skills. The child from a depressed area may well have a different pattern of skills ; earlier independence from adult control and help, greater contact with peer groups, and more chance to engage in adventurous physical activities ; and conversely he may lack skills fostered by the typical middle-class home, for example competitiveness, verbal and other cognitive abilities. They argue that preschool programmes for the disadvantaged must be designed to respond to these differences in the children's background experience.

The extensive documentation of the apparent ' deficits ' in the cognitive skills of disadvantaged children does not, however, lead to a clear prescription for the best type of preschool approach to remedy these deficits. Purely emphasising the relevant skill areas in the traditional broad-based approach is seen to be inadequate. Weikart suggests that conventionally trained nursery teachers, if left without supervision, will tend to focus on social and emotional rather than cognitive development. The theoretical basis for a broad programme of ' enrichment ' was also weakened when the theory that disadvantaged children were ' stimulus deprived ' was abandoned. More detailed study of home conditions indicated that on the contrary many disadvantaged children were bombarded with stimuli in crowded home conditions. It was concluded that the problem lay not so much in ' stimulus deprivation ' as in the degree of patterning and differentiation in the child's experiences, and the development of processing and categorizing skills to deal with these experiences. A structured and controlled approach presenting experiences in a sequenced order appeared to be more profitable than any broad programme of enrichment.

Weikart's second type, the ' structured ' nursery school method, while using a number of traditional nursery activities and materials, introduces much greater control by the teacher over the children's programme. The main focus is on language and cognitive development, by means of particular sequenced activities. The high degree of control required means that several teachers are needed in each nursery group, usually working with small groups of children. The programme is still relatively broad based, aiming at development in a range of intellectual skills. By contrast the third type, the ' task-oriented ' nursery school method, concentrates on particular skill areas, often using specially designed apparatus to achieve its ends. Where the structured approach may prescribe a certain area for the child's attention, in the ' task-oriented ' approach the teaching content or the organisation of the equipment is arranged in such a way that the child is confronted with the ideas to be learnt or problem to be handled.

Whether the ' structured ' or ' task-oriented ' method is adopted clearly depends on whether research has identified the key areas of deficit which underlie other skills areas. Gray and Miller (1967) argue in favour of the

structured approach, against the highly focussed 'rifle' method; 'this type of strategy is frequently taken by those researchers who believe that the rifle approach is somewhat premature, in view of the state of knowledge of adequate intervention techniques and evaluation procedures'. They also point out that what is intended to be a narrowly focussed programme, may in practice be fairly broad based. A language programme with preschool children has to use materials and equipment which may well forward other skills besides language. Other researchers such as Weikart (1967 *b*), have argued that the results of experimental programmes so far indicate that the 'task-oriented' approach is more successful than broader based programmes, and suggest that attention should be concentrated on this type of study.

Though a few of the 'task-oriented' approaches have concentrated on the development of such skills as reading, the main focus has been on language development, and in particular the development of higher order language skills, for example the understanding and use of 'logical operators' and abstract concepts. Improvement in these areas could have an effect on other skills in so far as language becomes an increasingly important tool. The work of Bernstein has often been cited as a basis for this concentration on language development; his two language types, the 'restricted' and 'elaborated' codes characteristic of the 'working' and 'middle' class respectively, provide a convenient rationale for language programmes for disadvantaged children, who apparently use 'restricted' language codes. However it is important to note that Bernstein emphasises that his findings are based on language performance, and do not necessarily imply a basic 'deficiency'. Compensatory language programmes sometimes assume that an inadequate language performance must stem from a basic lack of knowledge; remediation will thus be based on language exercices and drills. But there are alternative explanations of why a child exhibits a particular pattern of language. It may be that in certain social contexts he will use different and more complex language codes. If this is so, an alternative strategy of language development would be to try to reproduce these contexts in an educational setting. Such an approach would contrast with programmes which set out to teach language as if the child was unfamiliar with it.

We now turn to examine particular projects in detail.

The Early Training Project

The work of Gray and Klaus in their 'Early Training Project' was one of the first preschool intervention studies with disadvantaged children. They began in the summer of 1962 with a sample of 61 Negro children from a small town near Nashville; from this sample two treatment groups and a control were formed, with 20 or so children in each. The first group had three ten week summer preschool courses in 1962-4, before they entered first grade of school in the autumn of 1964 at age six. During the rest of the year there were weekly visits by specially trained home visitors, who maintained the training provided in the summer, giving assignments for mother and child to complete by the following week. The second group had two ten week summer courses, and a single nine month linking period of home visits. The third group received no preschool experience; a further matched group of children was formed in a town some distance away as an additional control. The stability of the areas has allowed follow-up studies to be made, most recently in 1968.

Gray and Klaus (1965) argue that it is unlikely that the disadvantaged child has fewer stimuli available, though they are likely to be of less variety. In addition, the disorganisation of home life may present too many conflicting stimuli to mark the necessary discrimination for learning possible. There may be very little support for learning in terms of adult reinforcement, particulary in homes where the father is absent. The positive reinforcement that is available may be too generalised to be helpful to the child ; it will tend not to be verbal, and may often restrict rather than encourage learning activities.

Following this analysis of the problem of the disadvantaged child, the project focussed on developing favourable attitudes towards educational achievement as well as perceptual, conceptual and linguistic aptitudes (Gray, Klaus, *et al.,* 1966). The organisation of the daily half-day programme stressed features that contrasted with the child's home background. There is a high degree of adult attention—from as many as five teachers for a single group of 20 children (usually including one male teacher to provide a suitable role-model for male children. Activities, whether in small groups of four or five children or with the whole group together, take place in an ordered manner, with children generally seated at their own table for small group work. Free play and activities such as pointing which might be less structured are not frequent. Systematic reinforcement procedures are employed : a child who has performed well according to his abilities will be rewarded by the teacher, perhaps with a hug or smile at the outset of the programme, later with very specific verbal reinforcement and materially with a small chip or pellet. These chips are saved, and exchanged for books or educational toys. The frequency and level of this reinforcement changes as the programme proceeds, becoming less frequent with the intention of developing ' intrinsic motivation ' to learn by the end of the programme.

The programme content was designed to develop a broad range of aptitudes. Large group activities may centre on a ' unit ', such as ' family and home ', the ' neighbourhood ', ' community helpers ' or ' the city '. This may be followed up in small group work, with activities using equipment such as jig-saw puzzles, pegboards, picture sequence cards and so on. The work here is sequenced to take the child through an increasingly complex set of exercises. Much of the equipment is familiar in traditional nursery work, but the degree of intensity with which it is used, and the planning of more advanced sequences, is clearly very different.

At school entry the first group after three summer programmes showed a mean gain of 9 IQ points on the Stanford-Binet intelligence test—rising from 86 to 95 in standardised terms : the second group increased from 91 to 96. The local control lost 4 IQ points, and the control group from another town lost 7 points. In follow-up studies of the children to June 1966, the difference between experimental and control groups was maintained though reduced, as the control groups showed some acceleration of their development on entering school for the first time. On other tests of ability significant differences in favour of the experimental groups were observed. On tests of school achievement, though differences were often in favour of the experimental group, they were generally not significant. A further follow-up testing in 1968 (Gray and Klaus, 1969) revealed that the experimental groups were still significantly different from the control, though the difference was very small. In standardised terms all four groups had scores lower than when they were first tested in 1962. Much of the decline

in the conctrol groups was accounted for by the group from another town. On other tests of ability and school achievement differences were no longer statistically significant.

A significant by-product of the evaluation of this programme has been the measurement of the so-called ' diffusion effect ' (Gray and Klaus, 1966). Younger siblings of children in the programme appeared to have gained in ability, presumably as a result of the mother's experience with the home visitor. The local control group also appeared to be affected by the programme, perhaps by copying in their own homes what they had heard about the project. In 1966 younger siblings of children in the experimental group were superior on intelligence test scores to those of the controls. The major study in Nashville since the Early Training Project has been to examine this diffusion effect. Gray and Klaus (1969) conclude from their follow-up studies that later schooling is primarily responsible for the subsequent fall-off in performance ; examination of scores for children from the experimental groups who attended integrated schools indicated that they followed a ' normal rate of development, though the number of cases was not large enough for detailed analysis.

Institute for Developmental Studies

A longer and more extensive but equally broad based project, is that run by Deutsch at the Institute for Developmental Studies in New York City. From 1962 onwards the project started preschool groups for disadvantaged children, recruiting between 120 and 200 a year. The children were mainly Negro, from an area in Harlem. Two years of preschool preceded school entry, and when the first year group reached school entry level the programme was extended upwards to cover the first three grades of school. By 1967-8 the project covered 17 classes in four public schools. Though it was initially expected that preschool enrichment would be adequate, progress with the early groups indicated that ' continuous and appropriately sequenced reinforcement in the grades is vitally important if the child is to maintain these gains through his school experience ' (Hawkridge *et al,* 1968).

In addition to linguistic, conceptual and perceptual development the curriculum stressed the development of a ' self-image ' for the children. For this purpose there was an emphasis on the use of names by both teachers and children ; photographs of children were frequently taken and displayed ; each classroom had a full-length mirror. Activities designed to increase pride in the Negro community were also included. For language development, audio-visual equipment was used, including ' listening centres ' with taped lessons and stories, telephones and ' language master ' machines. To develop pre-reading skills, letter ' form-boards ' were introduced. Other specific features of the preschool curriculum included language lotto, ' matrix games ' in which the child has to decipher a picture matrix and state what is on the missing picture (Gotkin, 1967), a development of the traditional game ' Simon Says ', and a method of teaching the calendar by programmed instruction techniques. A more detailed account of the curriculum is outlined in the Institute's Progress Report (Deutsch, 1967 *a*).

Evaluation of the programme has been complicated by the high turnover of children involved in the project. ' Attrition ' has accounted for more than half the children in one school after five years of the programme, and

more than this in the control school. By 1967, six year group 'waves' had been studied; by this date the first wave had reached fourth grade. The first two waves did not follow the full programme at the grade levels, and this may account for some differences in the long term findings. Evaluation data was generally drawn from samples of the children in the experimental and control groups. On the Stanford-Binet, children in the first four waves all made gains—as high as 10 IQ points in waves three and four; control remained at close to their original standardised score. On another test of ability, the Columbia Mental Maturity Scales, the control group in the first wave, after falling significantly behind the experimental group at the end of one year of preschool, closed the gap at the end of the second year. In the second wave, the control group, after two years of the programme, ended up with a higher score than the experimental group. Initial follow-up study on the first two waves suggests that on school achievement tests, the experimental groups had not established significantly higher patterns of performance (Hawkridge *et al,* 1968). Deutsch (1969) reports more general findings for the preschool programme; on average, groups had made an 8 IQ point gain, whereas control group scores had risen only marginally. At third grade the experimental group were significantly ahead on reading ability and on a number of subtests of the Illinois Test of Psycholinguistic Ability.

The Perry Preschool Project

This project, under the direction of Weikart, provided two years of preschool experience for Negro children from disadvantaged areas of Ypsilanti, Michigan. Each year between 1962 and 1966 24 three and four year olds took part in the project. To qualify, the children had to have a pretest score on the Stanford-Binet of 85 or less. They were described as 'functionally retarded'. Since 1967 the project has been expanded to allow an experimental comparison to be made between three types of preschool programme, including the curriculum developed at Ypsilanti. This comparative project is described later; at this point we are concerned with details of the Ypsilanti programme.

Apart from the first year group of children who had only one year of preschool, groups followed the programme for two years. The basic methods used in the project was the technique of 'verbal bombardment', in which the teacher involves the child in a series of questions to keep his attention on the important details of the situation. Teaching was organised around 'thematic units'; these were broken down into activities, each with its own set of objectives: for example, a unit might be 'milk and milk products', and the activities be concerned with teaching the child about different aspects of the subject (Hawkridge *et al,* 1968).

The morning was divided into two sessions. In the first, children were free to move to any one the four activity areas, each staffed by a teacher. Teachers prepared material which could be adapted for children who joined their activity area. The 'thematic units' used in these activity areas were designed to improve 'sensory perception, language development, memorization; concept development' (Hawkridge *et al,* 1968). The second session was more structured; the class was divided into two groups on the basis of ability, and taught for 20 minute sessions, in lessons that dealt with a particular skill that the group lacked. Work in the classroom was backed

up by home visits once a week by teachers ; by visiting the home they were able to gain more information about the child's experience outside the classroom, and his educational difficulties. There were field trips for children and parents, and meetings at intervals for parent groups.

In the final year of the project, a more structured programme was introduced, based partly on the theories of Piaget, and in particular the child's transition from the sensory motor stage to that of conceptual intelligence. In this curriculum, though the general objectives remained the same, the objectives of particular activities were set out in a more specific behavioural form and sequenced according to the order in which they were thought to occur.

In general the experimental groups in all the five 'waves' made substantial gains on intelligence test scores following the two programmes. Taken together, they were significantly more advanced than children in control groups at this stage, on the three tests of ability used. Follow-up studies demonstrated that the control groups made progress on entering full time schooling ; and by second grade, the difference between control and experimental groups was no longer evident on ability measures. However, school achievement tests for the first four waves up to grade three showed the experimental groups to be considerably ahead of controls.

'Nimnicht' Early Education Programme

This project in Greensboro, North Carolina, is one of several attempting to demonstrate the model of early intervention and development associated with the work of Nimnicht (Meier, Nimnicht, and McAfee, 1967). The project operates for 52 weeks of the year for preschool and first grade children and attempts what is termed 'community based aid'. What is meant by this is the active involvement of parents and the community in the action programme. There are several ways of achieving this. 'One way' screens are a part of the equipment of the projects so that parents can watch what their own children are doing ; it is hoped that by watching, parents will obtain a better idea of what their child can achieve, and an idea of how he can be handled more effectively. This is reinforced by home visits which aim both to explain the purposes of the programme to parents, and actively seek to modify parental behaviour towards their children, particularly in language, methods of discipline, and ways of playing with children. There is even a toy lending 'library' on the project. Project staff are both professional and 'para-professionals' ; the latter are from the community, trained within the project to take an active part in its programme. Frequently the para-professionals lack the necessary educational background to cope with formal training, and so emphasis is upon learning by doing, with times for discussion, observations and participation.

The role of the project organisers is to provide materials and approaches for both professionals and para-professionals that will enable them to help the disadvantaged child in social psychological development. But even in the preparation of materials the para-professionnal role is an active one. They know the community and its life ; therefore they can give insights and interpretations to the project team : in a sense they act as intermediaries between the population and the project. This is particularly important because the programme stresses the need for a 'responsive environment' for the child (the environ must respond to the individual child),

and the need for material and activities that have relevance and meaning for the children. One of the tasks of the para-professionals is to indicate what approaches and materials have relevance in the context of the project area. It is hoped that by the employment, training and experience given to the para-professionnals they will be able to act as community developers and enhance their own earning power.

The content of the programme has four main parts. Like the programme run by the IDS, the project emphasises the development of a positive ' self-image '. The thesis is that underprivileged children have not been placed in situations in which a positive feeling of ' self ' has developed. In fact many experiences have been exactly the reverse, especially for black children, with the result that children may have developed a destructive and negative feeling of self (black is ugly, dirty, etc.). Therefore one of the first objectives is to build up a feeling of the child's own importance : various strategies are used for this—the child has his own place in the classroom, his own peg to hang his clothes, everything is labelled with name so he can identify and be identified. Time is spent letting the child paint his own hands and feet to make him aware of his own body. Above all the staff attempt to respond to the individual in a warm and positive manner.

The second element stressed is language development ; it is argued that the disadvantaged child has received inadequate linguistic experience both in the complexity of language structure and vocabulary. Staff give help by emphasising the spoken word, getting children to explain and describe what they are doing, placing children in situations in which they must talk, and by using a specific individualised language programme especially geared to meet the child's language needs. Much of this work is done by tape recorders and by ' echoing ' (the child repeating what he has heard). However, the emphasis is that the environment responds to the child and the child finds the environment stimulating and exciting.

Limited experience can inhibit the development of sensory perception in disadvantaged children, and this is the third aspect of the curriculum ; the idea is to place children in situations in which the development of their sensory perception will be accelerated. For example, children are blindfolded, objects placed in a box and the child has to recognise them by touch and talk about them. Time is devoted each day to manipulating materials —paint, chalk, modelling clay—with the specific objective of getting the child used to handling and manipulating objects. A further example of the same technique is that an object is covered and the child has to identify it by its shape and touch, or is encouraged to remember a series of ' hidden ' objects.

A further objective is to place the child in a situation in which he has to solve puzzles. One example of this is the use of jigsaw puzzles as means of encouraging children both to develop solutions and think abstractly. These puzzles are also linguistic and mathematical. A specific part of each day is set aside in which children are expected, encouraged and helped to solve problems.

Though the curriculum elements of the programme have been described individually, it is important to remember that the action is inter-related. For example, throughout the programme children are encouraged to talk, and the explicit desire to support and develop a positive concept of self is common to all parts. The programme is structured and systematic in the sense that activities are pre-arranged and thought through. Nimnicht and

his co-workers have developed detailed programmes, but these are modified by day to day discussion and action of the staff. Further, they are introduced into a particular project after lengthy discussion and argument by the staff about their relevance for the particular group of youngsters. This is thought to be important both as part of staff training and as method of obtaining active staff cooperation in this project.

Other successful broad-based preschool programmes are reported from Fresno in California (Hawkridge *et al,* 1968), the diagnostically based curriculum in Bloomington, Indiana (Hodges, McCandless and Spicker, 1967), and the work of Sprigle (1966) using a programmed approach.

Under the ' task-oriented ' nursery school method, Weikart (1967 *b*) includes the work of Moore with the ' educationally responsive environments ' programme. Using a computer and linked typewriter the programme focusses on the development or reading and pre-reading skills. An account of the project is contained in Pines (1969). However the best known ' task-oriented ' programme is probably that of Bereiter and Engelmann in Illinois.

The Bereiter-Engelmann Programme

The ' academic preschool ' programme began in the autumn of 1964. By 1968 three groups had completed two years of preschool, and by that date the first group had reached the second grade in school. Numbers involved have been small, with about 15 to 20 four year old children in each of the preschool groups. The children are predominantly Negro, drawn from a low socio-economic status area where a considerable minority of the families receive welfare assistance.

Bereiter and Engelmann (1966) argue that the disadvantaged child must learn at a faster rate in the preschool years if the gap with middle-class children is to be closed. The traditional nursery approach or a broad enrichment programme is thus ruled out ; for time is limited, and the middle-class child is continually moving forward. Academic preschool curricula have to focus on the key areas that can move the child ahead rapidly ; the criterion of success for this approach is school performance—' we are not concerned with the disadvantaged child's " real " intelligence, whatever that may be, but with his chances for success in school '. (Bereiter and Engelmann, 1966).

Language deficiency is isolated as the central handicap ; and priorities are the understanding of such linguistic tools as the logical operators, ' or ', ' not ' etc., the use of general and abstract terms. They suggest that disadvantaged children tend to treat sentences as ' giant words ' ; they are slow to develop understanding of general words, and do not see the significance of reordering words in a sentence, or the effect on sentence meaning of introducing negatives. A set of 14 minimum goals embodying the more general objectives of the programme were developed ; these include numerical and reading as well as linguistic skills.

For the teaching sessions three homogeneous ability groups are formed, with 4 to 7 children in each. There is a separate teacher for language, arithmetic and reading, and a fourth teacher for any children too weak to participate in group lessons. There are three 20 minute teaching sessions in the morning. For the three subject areas the methods of teaching are

similar, using very rapid question, answer and repeat techniques between teacher and children—the so-called ' pattern-drill ' method sometimes used in foreign language teaching. Emphasis is placed on the logical relationship between words, for example polar pairs, rather than on works linked in the child's experience through connection with such ideas as home or school. The aim is that the child should grasp the underlying rules of language. In the maths programme, procedures are reduced to certain counting operations and rotelearnt sequences ; these are then used to solve more complex problems including simple algebraic terms. A modified initial teaching alphabet approach is used in reading ; by excluding words which are inconsistent in their spelling, the logical rules for decoding words are emphasised. Both negative and positive reinforcement are used to gain attention and maintain the high pace of the programme. Further details of the curriculum are included in Bereiter and Engelmann (1966) and Hawkridge *et al* (1968).

The first group of children who completed the programme in 1966 did not have any control group against which to assess their development. In standardised terms their mean IQ score on the Stanford-Binet improved from 93 to slightly above 100 after seven months of the programme. It was suggested that this advance to 100 did not fully reflect the academic level of the children, which was stated to be ' commensurate with IQ 10 or 20 points higher ' (Bereiter and Engelmann, 1966). The second group in the programme from 1965-7 were compared to a set of control children who followed a traditional nursery and kindergarten year. After one year of the programme from similar starting points, the experimental group had made a gain of 17 IQ points and the control a gain of 8 points. In the second year, the experimental group gained nearly 9 more IQ points, whereas the control declined nearly 3 points. The final mean IQ for the group, numbering twelve children, was 121 ; three children had final scores over 130. Follow-up studies of the second year group, after the children had been in school for one year, showed that there was a sharp fall off in standardised score. The mean score on the Stanford-Binet was 110, a decline of 11 IQ points, though this was well above the point at which the group had started at entry to preschool (Bereiter, 1969). On school achievement tests at school entry, the mean scores were well above first grade level ; in reading and arithmetic, scores were well above second grade level.

The Marion Blank Individual Language Programme

A development of some of the ideas underlying the work of Bereiter and Engelmann can be seen in the individual language tutorial programme run by Marion Blank in New York. She argues against the idea of a general enrichment programme, and isolates the development of abstract thinking as the key area. The behaviour of the deprived, she suggests, ' reflects the lack of a symbolic system by which to organise the plentiful stimulation surrounding them ' (Blank and Solomon, 1968). The development of abstract language is selected as the most effective means for developing abstract thought. Other programmes with similar objectives have used the group teaching situation ; Blank argues that in the group a child can imitate the successful child, and avoid having to understand much of what he is being asked to do. Often the child is not called upon to make a response, and may not have in fact fully grasped what is being taught.

By contrast the individual situation allows the teacher to operate at the level of the particular child and continually check his understanding.

A series of teaching techniques was developed for the short 15-20 minute individual session. The central point was to develop a 'Socratic dialogue' between teacher and child, so that the child is encouraged to probe for further information. Progress by the child is monitored by a series of questions, even when the child has achieved a correct solution, to check his understanding. In contract to the approach of a number of other language programmes the individual sessions allow a context for language development to be created; for example, discussion about the possible outcomes of mixing substances with water can precede the activity itself; this procedure is designed to facilitate the development of reflective thought. The abstract language to be developed 'could not be illustrated by simple direct examples or simple labeling' (Blank and Solomon, 1968) and required different techniques. The programme uses normal preschool equipment, though 'the materials were used only as points of departure from which the child could discuss increasingly abstract (non presently-existing) situations which were relevant to the materials'.

For the programme 22 children in a New York nursery school were divided into four groups, matched on IQ, age and sex; two of the groups received varying frequencies of individual tutorials, a third group had individual sessions but without any form of tutoring; and the fourth group remained in the nursery class. Over a four month period, children in the most tutored group had increased their IQ scores on the Stanford-Binet 14.5 points from 97.7 to 112.2; the second group with less tutoring had advanced 7.0 points from 93-100: the two groups who did not have the tutored programme only made small gains. Though the overall numbers of children involved in the tutorial groups were low (12 children in all), the results were statistically significant. Further details of the individual method are included in Blank and Solomon (1968) and Blank (1968). Blank and Solomon (1969) include transcripts of three individual sessions, indicating some of the programme techniques and guidelines.

Projects to Compare Preschool Methods

Several of the projects we have described used traditional nursery groups as controls for their own programmes; generally the experimental tended to outperform children from control groups, but these differences were often not maintained. It was noticeable, too, that the more precise 'task-oriented' approach achieved larger gains than the structured methods which were not so highly focussed. Jensen (1969 *a*) quotes Bereiter, who suggests that in general preschool programmes for the disadvantaged have succeeded in reducing the gap by which such children fall below normal by half; thus a group with an initial mean of 90 IQ would tend to rise to 95 IQ—halfway to the 'normal' score of 100. Both the 'task oriented' approaches we have described have succeeded in raising the mean of the experimental group well above this 'normal' score. Programmes have been set up to examine these comparative effects in more detail.

Karnes (1968) developed a project to compare the effects of five types of preschool programme—traditional nursery, the Karnes learning programme, Bereiter-Engelmann, Montessori, and a 'community integrated' programme in which children from different social backgrounds were

enrolled. Results indicate that after one year the Bereiter-Engelmann and the Karnes group made significantly greater gains on the Stanford-Binet than the other three groups ; during a second year the Bereiter-Engelmann group continued to make gains, though the Karnes group made no further advance. Similar findings for the comparative effects of more structured and traditional programmes are reported by Rusk (1968) and Di Lorenzo (1968).

The Perry Preschool Curriculum Demonstration Project

This project was a development of the Perry preschool. Three types of curriculum were compared—a ' unit-based ' approach that stressed social and emotional development, the ' cognitively oriented ' method developed in the Perry project, and the ' language training ' approach of Bereiter and Engelmann. In contrast to many other comparative projects, the programme was set up so that differences between the groups were minimised. Each group had children of similar abilities from the same background, and had the same number of staff, training periods and time for home visits. Teachers were allocated to the groups according to their choice of method.

Though initial reports suggested that the two more structured methods had achieved faster rates of development (Weikart and Wiegerink, 1968), subsequent findings based on replications of the project show very different results (Weikart, 1970). On tests of ability (the Stanford-Binet, the Leiter International Performance Scale, and the Peabody Picture Vocabulary Test) very substantial gains were achieved. In some cases gains on the Stanford-Binet were as high as 30 IQ points, though the groups had a low initial score because only children with a measured intelligence of 85 IQ or less joined the programme. However there were no significant differences between the different treatment groups. These findings of similar outcome were confirmed by two rating scales. Teachers rated their pupils for independence, academic competence, emotional adjustment, and socio-emotional level ; but there were no differences between the curriculum groups, although the programmes were designed to promote different modes of adjustement. Classroom observation produced the same result, though each curriculum was being correctly administered.

These results were totally unexpected. The programmes are very different in their theoretical approach and application : and the results conflict with other comparative studies. It is possible that although the central emphasis of each programme is very different the actual intervention is so comprehensive that what is central to one is incidental to others. The main explanation appears to be that each programme had the same ' staffing model '—the time to plan and develop clear objectives, to discuss day to day arrangements, and to make home visits to children in the programme. The conclusion seems to be that substantial gains may stem not so much from detailed aspects of the curriculum, but from careful planning, high teacher commitment to programme objectives and methods, and resources of time and money to carry out activities to support classroom work.

Experimental preschool projects, as well as the evaluation studies of more extensive programmes such as Head Start, have yielded a considerable body of information about the effect of preschool work on cognitive development, as measured by tests of ability and school achievement. There is less information about the effects on social and emotional development, partly because of the less satisfactory instruments to measure change in this

area, and partly because many experimental projects have set cognitive development as their main objective.

Follow-up studies into the school years have underlined the fact that a preschool programme alone, however highly focussed, is not sufficient to solve long term problems. Children who show a normal or an above normal rate of development during the programme do not seem to maintain this rate once its support is removed, and in standardised terms their IQ scores may show a decline. But the long term results of different programmes are not uniform ; in some cases gains have been maintained, in others they have quickly ' washed out ' after the end of the programme. Various explanations have been put forward. The quality of the elementary schools to which children go is one important factor, suggesting the need for follow-up programmes. This is the strategy of the ' Follow-Through ' project. A second possibility is that a school-centred preschool programme makes little impact on the environmental conditions that cause the initially depressed scores. Once the programme's support is removed, these factors reestablish their importance. Though many of the projects described have included contact with neighbourhood and home, through ' parent centres ' and home visitors, this has generally been subsidiary to the classroom programme. A programme such as the Early Training Project, which used home visitors to back up a short summer preschool, has been able to maintain the effects of the programme over a considerable period of time. This suggests a need to place more emphasis on home contacts if effects are to last.

A third source of explanation for the short term effects lies in the programmes themselves. It is possible to argue that their impact comes too late ; even earlier intervention is required, for example home visiting and infant education projects. Another approach has been to question the significance of some of the gains and offer a reinterpretation why the rate of development should fall back so rapidly. Zigler and Butterfield (1968) suggest that some of the gains may be a result of motivational factors ; and they present experimental evidence to suggest that gains can be achieved by manipulating the test administration to increase children's confidence. Jensen too (1969 *a*) indicates that gains of 10 IQ points may result from greater familiarity between child and tester. Experimental projects have tried to minimise this factor, by for example delaying pretesting until children have adjusted to the preschool conditions. Even so, it is likely that the highly supportive climate of many preschools will have more effect on children's motivation, particularly in test-taking situations, than the more formal conditions of the elementary school.

Others have questioned the element of rote learning that takes place in some of the more focussed programmes ; how far is this a basis for future advance ? Kohlberg (1968) reports that children in one such programme were not able to generalise from rote learnt statements such as ' six plus two equal eight ' to other calculations of a similar level. They did not seem to have grasped the general principles involved. Particularly where programmes set objectives of accelerating the type of skills required in school, there is a risk that by getting children to learn procedures by rote the indicators of development rather than basic intellectual processes will be altered. How these basic processes themselves can be affected, raises fundamental questions about intellectuel development. On approach that may lead to greater information is to analyse the necessary stages of development that a child has to go through down to their smallest possible

components. Ideally this method should provide details of the tasks that a child has to master before he can move on to a higher order piece of work, and any attempt to teach him skills which imply other skills not yet mastered would be avoided. The Primary Education Project in Pittsburgh (Resnick, 1967) uses this method of ' task analysis ' with preschool and grade level classes. Research connected with this project has begun to map out in detail sequences of skill development that will help teachers of young children set relevant learning objectives, that do not themselves depend upon mastery of stages that the child has not yet achieved.

By concentrating on intensive classroom programmes to develop specific skills, there is a risk that the overall effects of such preschool work may be overlooked. We know little of the effects of such intensive work within the school on relationships outside. If the programme teaches particular language forms, how will the preschool child use this language in a home situation where such language forms are not used or are associated with other social groups ? In discussing some of the evidence for intensive preschool language work, we suggested that the apparently inadequate performance by disadvantaged children was not necessarily the result of inability. The skill in question might not be one encouraged by the home. By promoting this type of skill in a preschool programme, and creating an environment which contrasts with the home, it is possible that the gap between home and school will be widened. Whether this tension undermines the long term effects of the programme, or whether the child is able to accept the duality of home and school, are questions to be examined carefully. Yet it would seem of critical importance in developing intensive programmes designed to compensate for particular deficits of disadvantaged groups, to see these programmes in the context of the child's total experience, and to assess the effects that a school-based programme may have on extra-school relationships. By ignoring this aspect, the tendency will be for intervention programmes to press for longer and more sustained control over the child, to reduce the counterpressures of home and neighbourhood which are not under the control of the programme.

There are strong tendencies in this direction in several preschool projects. In part this may be the result of economic pressure from working mothers for more extensive day-care facilities for young children ; and in part it may be the belief among some educators that only complete institutional care will bring disadvantaged children to a normal level of development and maintain them at this point. A project that is developing a more comprehensive day-care programme is the Frank Porter Graham Child Development Center in North Carolina. The project has two aspects, a day care centre for 240 infants and preschool children, and an elementary school from first to sixth grade with special enrichment programmes for 600 children. The day-care centre is open from 7.30 a.m. to 5.30 p.m. throughout the week ; it is staffed by nurses and child care workers as well as child development specialists. The day programme is planned to include specific educational activities, as well as recreation. The children are given complete medical care, both at the centre and at home, by doctors and nurses of the centre staff. Children are expected to come to the centre even when sick, since arrangements have been made to care for them there. A registered nurse and a pediatrician are at the centre at all times, and a Public Health nurse is available for home visits. As the programme develops it is planned to provide a comprehensive service for families, so that families

will be able to enrol all its children of the right age ; and as subsequent children are born they will automatically be eligible for care in the centre.

In this section on preschool programmes, we have reviewed both the large scale Head Start programme and small experimental projects. Head Start was set up in a very short space of time ; consequently standards of building and staffing varied considerably from centre to centre. In general a conventional preschool curriculum was followed. Overall results for both the short term summer programmes and the year long schemes have been disappointing ; it does not seem that the gains achieved make any substantial long term impact on educational performance, though there is some evidence that centres in certain areas are more effective than others. In this section we have been concerned principally with the educational results of Head Start. Details of parental involvement will be considered in Chapter IV.

Small-scale experimental programmes have often managed to produce very substantial changes in IQ ; basically the more focussed the programme, the larger the gains that are achieved, though a comparison of the effects of different programmes suggests that the time available for planning and support work is important. Again the long term results are disappointing. Some programmes have managed to trace residual effects on ability several years after the programme ended, but their size has little educational significance. On school achievement the findings are more hopeful, indicating that some long term effects may take place. The lack of clear long term results points to the need for sustained programmes into the elementary schools, as well as programmes for younger children still, and more information about the effects of intensive school work on the child's experience outside the school. Parental involvement to carry on the effects of preschool work outside school time and after the programme has finished, is another means of maintaining the improvements that are made at preschool level.

ii) *School Level*

In contrast to the preschool level, where projects for the disadvantaged may often have a clear field as new institutions, the problems of innovation at school level where programmes have to accommodate to existing personnel and facilities are more complex. The tendency here may be to build on ' additions ' to the school programme, which conflict least with established practice—for example, the provision of new remedial reading schemes, ' cultural enrichment ' by out of school trips, and increases in specialist staff. Though such partial changes in the school programme are likely to be less effective than more basic changes in teaching method and classroom organisation, the time-scale under which many compensatory projects operated was not adequate to introduce extensive innovations into classroom practice. To implement effective change in day to day teaching methods requires either an adequate system of in-service teacher training and support, or alternatively a teaching package of programmed materials which can easily be adopted by the teacher. Fantini (New York Conference) stressed that teachers will tend to press for changes that solve their immediate problems, such as reductions in class size, an increase in resources, and more specialist teachers. Initially this position was adopted by those who set up compensatory programmes at school level ; basically the school was seen to be doing a good job, but to lack certain resources of staff and money to make it effective in depressed areas.

The failure of preschool programmes to make a sustained improvement in school performance has largely undermined this position ; one reason for the ' fall-off ' by children who have been through preschool once they join elementary grades, has been the lack of stimulation in school programmes. Piecemeal reform is no longer seen to be adequate if the boast provided by specially developed preschool curricula is to be maintained. The strategy of the ' Follow-Through ' project is to develop comprehensive programmes for the early elementary grades in disadvantaged areas for children who have attended Head Start centres. But the method adopted by ' Follow-Through ' has been closer to the development of the experimental preschool projects than to the form of Head Start. There is much greater attention to the type of curriculum that may be particularly suited to disadvantaged children ; and ' Follow-Through ' is being developed at a more methodical pace, in contrast to the rush to open centres that occurred in Head Start. At present ' Follow-Through ' is restricted to a few areas. The majority of school level compensatory programmes has been funded under the Elementary and Secondary Education Act of 1965, particularly Title I.

In this review of school level projects we look first at the Title I programmes, and in particular at the More Effective School project which was carefully evaluated and included many features typical of other Title I schemes. We then turn to the Follow-Through project, and compare two of the curricula that are being developed for this programme. Other school level projects which involved ' cultural enrichment ' and reading programmes are briefly reviewed. Finally we look at programmes for the higher secondary level which try to promote college entry by the disadvantaged.

Title I

Title I of the ESEA provided the major source of funds for school level compensatory projects. Other Titles of the Act supply funds for library resources, supplementary education centres and regional educational research and training facilities, as well as resources to strengthen state departments of education. Title I, which released about $1 billion (U.S.) per year for compensatory educational projects, was by far the most important element. Funds were distributed through state education agencies to local school districts in proportion to the number of disadvantaged children on roll. ' Disadvantaged ' was defined as children from families with incomes below $2,000 per year.

The aim was for projects to be planned and approved before funds were distributed to local school districts. The short time available, and the problems of planning compensatory projects at local level, meant in practice procedures were more diverse ; in fact it was suggested that ' most local and state administrators are more concerned with the technicalities of getting money into local school districts than they are with what that money will be used for ' (*School Management*, 1965). There were also suggestions that the method of allotment might act in favour of already more prosperous areas where the levels of educational expenditure were already higher (Rees, 1968) ; for allocation was in proportion to existing expenditure. There was no guarantee either that the funds would go to disadvantaged children. In fact, a survey of participants in Title I programmes during 1967-8 indicated that nearly 70 per cent of the pupils served were defined as ' educationally deprived ', ' but less than half of those needing compensatory services

and enrolled in Title I target schools actually participated in the special programmes supported under Title I' (US Department of HEW, 1968). Guidelines for the approval of projects under Title I indicated the type of population to be served, and the varying needs of educationally deprived children could be met by educational programmes. Planning of programme objectives and cooperation with other agencies in the field were also stressed. Generally expenditure on new building and equipment was only to be made in cases of priority. An evaluation of each major activity was to be conducted. Within this framework, an enormous range of projects was mounted. In the second year of operation (1967), more than nine million children were estimated to be taking part in a Title I project, the majority of these being in the first six grades of school. 83 per cent of the expenditure was on programmes in regular school term ; the proportion spent on summer vacation projects declined after the first year. Construction of buildings and equipment accounted for less than 13 per cent of the budget, the majority, 65.8 per cent, going on instructional programmes. The emphasis was increasingly on reading ; in the second year more than 52 per cent of the children who participated in Title I projects were involved in instructional activities including reading ; 38 per cent took part in 'cultural enrichment', including art and music ; 21 per cent in physical recreation programmes ; and 18 per cent in mathematics work (US Department of HEW, 1967). The broad ranging nature of Title I programmes can be illustrated by the variety within a single school district—for example in Cincinnati, the evaluation report (Jacobs and Felix, 1967) lists six main programme areas ; within these divisions 39 different types of project are enumerated, ranging from remedial provision to summer camping expeditions, parent leadership training and community relations activities.

Both the extensive coverage of Title I projects and their broad focus raises problems for evaluation ; on the one hand there may be difficulty in finding comparative groups who have not participated in the programmes, and on the other, there is the problem of disentangling the effects of a multi-level programme where children have participated in a number of projects. The standards of evaluation also varied from area to area, making overall assessment of the programmes' effect difficult to estimate. The second year Title I report (US Department of HEW, 1967) indicates that on the criterion of reading ability in the twenty-one states that provided usable data, there was a decline in the number of children scoring in the lowest ability quartile and a slight increase in the number in the highest quartile after participation in Title I projects. Judged by national norms, the distribution of children from Title I projects in these states was still below normal. Similar findings were reported from a study of thirty-nine city districts. Though attendance did not appear to have improved over the year, there was a decrease in the drop-out rate ; more students from Title I schools continued into further education than before.

Though there are overall indications of gradual improvement from some of the findings, it is not clear how far these are attributable to the effects of Title I projects. For example the gains in reading were generally measured against national norms, rather than comparative groups of children ; and changes in drop-out rates may reflect an overall trend ; a school with the highest rates of drop-out has the most room to show improvement. Detailed studies of particular projects using control groups have often indicated negative results. Others have suggested that the equivocal results

in the first years of operation were to be expected ; ' significant and far reaching effects simply would not take place within a few years ' (Jacobs and Felix, 1967). A survey conducted in 1968 produced in 1968 general conclusions of the effects of Title I on reading ability. Overall, compensatory reading schemes had not lead to any significant reduction in the gap below normal levels. Pupils who did make gains were often less socially disadvantaged than those who did not. Significantly, their teachers expected them to improve (US Department of HEW, 1968).

This lack of clear-cut results raises questions about the scale of resources available to school districts, despite the overall size of the programme and the time and expertise available to plan projects. It was estimated that in 1967-8 an average of $68 was spent for each participant in a Title I remedial reading programme ; an amount of this size would be inadequate to provide a remedial teacher for small class work (US Department of HEW, 1968). The evidence of gains achieved by small-scale preschool projects underlines the importance of planning and controlling the details of programme content ; without this, good will and good ideas may not be adequate to produce improved performance. It is likely that the size of many Title I projects did not allow this degree of planning or control. Faced with a range of projects, implemented in varying ways, the problem of evaluation is to distinguish whether the innovation was ineffective because it was poorly implemented, or because the innovation itself was not likely to achieve the objectives set. The More Effective School programme, funded under Title I, illustrates this problem in detail.

The More Effective School Programme

The ' More Effective School ' programme was initiated in ten New York elementary schools in the autumn of 1964, with a further eleven schools being added in the following year. The schools were in disadvantaged areas (sixteen in designated poverty areas). Evaluations were conducted both by the Research Department of the New York Board of Education, and by an outside body, the Center for Urban Education, which carried out two separate evaluation studies in 1966 and 1967. Details of the action programme were outlined by a joint planning committee, set up by the Superintendent of Schools ; this comprised representatives from teacher unions as well as people from the Superintendent's office. Although initially developed in New York the programme was promoted in other cities by the American Federation of Teachers.

In essence, through the advocacy of the official teacher organisations, the More Effective School programme represented the American teaching profession's views of what needed to be done within school to ameliorate the condition of the urban poor. The structure of the project was complex. The committee recommended a drastic reduction of class size : a maximum of fifteen in pre-kindergarten, twenty in kindergarten, fifteen in first grade, twenty in second grade, and twenty-two in grades three to six. For every three classes of these sizes, four teachers were provided, one of these being a mobile or ' cluster ' teacher to assist the others. In addition, specialist staff in art, music, and reading, were provided, as well as guidance and social workers, audio-visual and health teachers. Each ' More Effective School ' was to have four or five assistant principals, compared with the

normal one or two ; their duties were to include support and in-service training for classroom teachers.

To encourage parent/teacher relations and follow up cases of persistent absenteeism, a community relations teacher was appointed. The classroom situation was reorganised to encourage mixed ability groups and team-teaching cooperation among teachers. To take advantage of these additional resources, intensive in-service teacher training was built into the programme during timetabled preparation periods.

The central theme of the project was a large-scale increase in staffing, both in classroom teachers and supporting specialists, on the basis that this change would encourage classroom innovations to develop. The scale of this increase meant that the per pupil costs of the MES schools were nearly twice that of schools in similar areas without the programme (Fox, 1967). Resources on this scale stressed the importance of evaluation to discover how effective the programme might be.

The second evaluation by the Center for Urban Education (Fox, 1967), conducted when the project had been operating for three years in some of the schools and two in others, yielded four main conclusions. There was wide variation among the twenty-one schools in the way that the additional resources had been mobilised and the teaching situation altered. Independent observers, teaching staff, and administrators all reported the belief that the scheme was effective and beneficial. There was also community support for the programme. But, there were, according to the evaluation, no significant differences between the performance of children in the MES schools and children in control or other special service schools without the MES programme, both on standardised performance tests of English and arithmetic and on a variety of observer ratings. The performance profiles of the schools showed no difference from the profiles in the same schools before the programme started. Children in the fourth to sixth grades were either further behind the normal population at the end of the three year programme or at best no closer to it. Despite the improved staffing and administrative and organisational changes, little alteration was noted in the way of innovation or restructuring of the basic teaching situation. The method of instruction was basically the same as before but in small and mixed ability groups. To explain these discrepancies, the evaluation study concludes ' a basic administrative restructuring of a school so that classes are smaller, teacher-pupil ratios significantly reduced, and specialized teaching, psychological, social and health services provided, will have a dramatic impact on the attitudes and perceptions of the adults who function in, or observe the school. This is true of the adults who administer the school or teach in it, or of the adults who see it because their children attend it, and also of the adults who enter to observe it as members of the evaluation team. But these administrative changes although elaborate and expensive in terms of both money and professional time will not, in and of themselves, result in improvement in children's functioning ' (Fox, 1967).

The findings of Fox's study, though supported by earlier evaluations, have naturally been challenged (*Urban Review*, May, 1968). It is suggested that the programme was evaluated too early in its life ; that some of the findings were based on impressionistic observation, rather than reliable measures ; that comparisons made with other schools were inappropriate and unfavourable to MES. The timing and comprehensiveness of the testing was also criticised. In general the evaluation team was charged with

being biassed against the programme and emphasising negative conclusions. Fox (1968) has countered a number of these criticisms. Studies conducted by the Research Department of the New York School Board in 1966 and 1968 (Hawkridge *et al*, 1968) came out with more positive findings in favour of MES particularly on reading ability. These studies sought to exclude mobility factors by analysing only the scores of children who had remained continuously in the MES or control schools. In many cases the score profile of children who had been continuously in MES schools was higher than that of children from control schools.

Despite this controversy about the effects of the programme, it is clear that a dramatic increase in resources has not brought about a clear-cut improvement in pupil performance. Even if the reinterpretation of the data suggested by the critics is accepted, the improvements are small compared with the cost of the programme. There is no simple relationship between resource input and academic return. A central reason for this in the MES programme may have been the lack of innovation in the actual teaching situation, though the original proposal called for change in this area.

The 'Follow Through' Programme

In response to some of the findings from Head Start and Title I projects such as the More Effective School programme, 'Follow Through' has followed a very different pattern of development, concentrating far more on classroom and curriculum level. Originally intended to carry forward the Head Start approach into the early grades of elementary school, forty pilot programmes were established in the year 1967-8. A sharp cut-back in funds available for the following year made the planned expansion into a national programme impossible. At the same time, evidence from evaluations of the Head Start and Title I programmes was beginning to indicate that radical improvements in school performance were not easily to be obtained by setting up new or improved educational facilities. An enriched school environment by itself was not adequate to produce change, through the results of small scale preschool programmes specially devised for disadvantaged groups suggested that certain types of curriculum could produce substantial improvement.

In its initial stages 'Follow Through' is an exploratory programme, developing and evaluating a number of curriculum approaches, operating them on a pilot basis in a limited number of communities throughout the country. Each community is linked to a 'sponsor', in most cases a university or college group, who have undertaken the design of the curriculum and any training that its implementation might involve. These approaches are to be evaluated both in the locality and by the programme sponsor. In addition the Stanford Research Institute is to conduct a longitudinal evaluation of the national programme. A sample of the communities is being studied to assess performance, and a 'programme objectives' test has been developed to represent the range of different objectives that the programmes might have. This is to get round the problem of comparing a number of curricula that have different objectives. A list of programme objectives contributed by programme sponsors has been sampled to produce a test that should be valid for comparison across programmes.

Like Head Start, the national Follow Through programme emphasises a wide range of services in addition to instructional content; these include

health, nutritional, social and psychological services, as well as training activities for staff, non-professionals and volunteers, and programmes of parental and community participation in the project. At the pilot stage the interest lies in the range of instructional approaches. Many of these are developments of successful preschool programmes; thus Engelmann, Weikart, Nimnicht, and the preschool group at Peabody College, Nashville, are among programme sponsors, with curriculum based on their earlier work. Gotkin and Krull contribute a programme centering on the type of instructional games developed as part of the Institute of Developmental Studies' programme (Gotkin, 1967). A parent-training programme based on the preschool home visiting project conducted in Florida (I. J. Gordon, 1967) is also among programmes being sponsored. Other approaches include techniques of behaviour modification for use in the classroom, 'community school' development and a programme for children for whom English is a second language.

There are fourteen separate curriculum approaches in the initial phase of Follow Through. An outline of two of these projects, which are already in operation, will demonstrate the variety of curricula included in the national programme. In general, approaches can be grouped into those which seek to develop new teaching styles by in-service training and teacher 'sensitisation' to the problems of the disadvantaged, but do not spell out the curriculum in detail, and those which specify the lesson content and method of teaching in precise terms, often using programmed materials or kits. In the first method the teacher is expected to grasp the basic principles of the approach, and then work out the details for herself; in the second case the teacher has to learn how to use a specific set of materials. An example of each of these approaches will be described here.

The Education Development Center (EDC) is the sponsoring agency for the so-called 'Leicestershire model'—partly based on the organisation found in a number of British primary schools. The two main features of this approach are the development of a classroom environment responsive to the needs of individual children, as well as to the skills of the teacher, and the growth of advisory services to stimulate innovation. Within the classroom, children are free to plan their own activities from a range outlined by the teacher; groups of individuals work at their own activity independent of one another; the time is not broken by subject divisions, allowing children to follow an interest for long periods on an interdisciplinary basis. Work proceeds with discussion and conversation among children, and the classroom is supplied with a variety of raw materials to stimulate experiment. Rather than a prescribed curriculum, activities develop according to the needs and interests of the children: the teacher provides overall guidance, by 'provisioning and structuring the environment'. Advisors reinforce teacher experimentation by conducting in-service training, particularly through 'workshops'; the major aim is to ensure that innovation and development within the classroom become self-sustaining.

EDC stresses the 'organic' nature of their approach and its development, beginning with teachers and schools that are sympathetic, and spreading from these 'growth points', in the way that seems to have occurred in Britain. As a solution to the problems of the disadvantaged child the approach raises a number of issues. First, it places the main responsibility for programme development upon the teachers and advisory staff. While this may increase teacher morale and create a responsive classroom

environment, it is not yet clear whether these changes are adequate by themselves to promote the skills in which the disadvantaged are retarded. Secondly, the emphasis on 'organic' development means that the approach spreads slowly ; it may be that schools in disadvantaged areas will be reluctant to experiment with the radical changes in classroom organisation that free choice by the children entails. They may fear that it means loss of time for teaching basic skills such as reading and possibly loss of class control by inexperienced teachers. On the other hand an important strength of the approach lies in the idea of continuous growth in the curriculum, ensuring that classroom routines do not become frozen at any one point in time. It may ensure consistently high teacher interest in classroom activities, and enthusiasm that can be communicated to children in the classroom.

Children in schools using the Individually Prescribed Instruction (IPI) programme may show the same kind of grouping seen in classrooms following the EDC approach. Children work individually, sometimes discussing problems with their neighbours, and teachers move around giving advice and guidance. Despite this apparent similarity, the basic principles of the two approaches are quite different. IPI, already in use in a number of classrooms, particularly at Oakleaf School near Pittsburgh, is represented in two of the curriculum approaches in the pilot Follow Through programme. Becker and Engelmann plan to use IPI at higher grades to follow a development of the Bereiter and Engelmann preschool approach in lower grades. The Learning Research and Development Center at Pittsburgh University is combining a modified form of IPI with its Primary Education Project, which is also designed for use in the early elementary grades.

The starting point of the IPI approach is that learning is basically an individual activity. Programmed learning has demonstrated that the learner can proceed individually at his own pace without assistance from outside. But the main drawback to programmed learning schemes is that they have generally been restricted to small sections of the curriculum, which often do not extend from one grade level to another (Lindvall and Bolvin, 1967). IPI provides a programmed curriculum to be followed individually for several years of study, covering basic subjects such as mathematics, reading, spelling and science. Each child proceeds at his own pace, and the concept of a 'grade' in which particular skills are mastered is no longer applicable. For each subject children use work books in conjunction with the range of audio-visual equipment available in the study area. Individually packed science kits are used under instruction from play-back tape recorders. When a child has completed a particular work series, it is marked by a teacher or aide or by the pupil himself ; tests are included to provide a means of monitoring the level of progress the child has achieved. Prescriptions for the next stage will be based partly on how well previous exercises and tests have been performed, indicating whether the pupil is ready for the next stage or should consolidate his progress by work on material of a parallel level.

The intention of the programme is that the pupil should be able to work on his own without frequent recourse to outside help. The teacher is there to monitor and record the progress made, and to guide pupils in difficulties with their work. Materials are developed separately by experts in programmed learning, with the aim of producing instructional matter which can be understood by the child without explanation from the teachers. The authors indicate that most text books for school use and much programmed material commercially available requires teacher explanation before it

can be used by the child (Lindvall and Bolvin, 1967). In IPI the aim is to assemble instructional material that can be followed largely without teacher guidance, even by young children. A variety of communication media, tapes, records, as well as written material, are used to achieve this. Because of the individual nature of the programme, extensive records of progress have to be maintained ; at Oakleaf School, these are set up on a computer so that an individual child's progress can easily be monitored. The science programme has been developed up to the third year in school—the other subjects for the first six years of school. Certain subjects are still to be taught by conventional group methods.

In contrast to the EDC programme, IPI constitutes a completely different approach to classroom innovation and the role of the teacher. In the Follow Through programme, IPI is modified by elements of the Primary Education Project ; for example, a greater emphasis on different modes of learning, allowing more choice of instructional materials by the child, the use of reinforcement techniques to improve pupil motivation, and more attention to the acquisition of basic skills, rather than the ' standard subject matter ' which forms a part of the IPI curriculum. Despite these modifications, the basic difference between the two curricula remains. Each represents a different approach to the problems of classroom innovation, not only in disadvantaged areas but in the educational system as a whole. One places the prime responsibility for innovation at the level of the school and the individual teacher, backed by in-service training and advisory resources. The other removes such innovation from the school ; it is a technical exercise carried out by a group of experts, though the curriculum may be field-tested in schools and modified in operation.

The comprehensive approach adopted by the Follow Through programme may mean that in time a total curriculum suitable for disadvantaged children in the elementary grades will become available, having been tested and developed in comparison with other methods. There will still be the problem of implementing the approach, training of staff, and providing resources of time and money. Until then, it is likely that classroom developments for the disadvantaged will remain of the kind that made up the bulk of Title I projects—extensions and additions to existing work such as reading programmes or ' cultural enrichment '.

Reading Programmes

Reading programmes formed a major part of Title I. Several of the approaches that have been developed under Title I and in other schemes have aimed particularly at the disadvantaged. A number of writers have stressed that to develop reading ability among the disadvantaged, reading material that is exciting and relevant to their experience is essential. Taba and Elkins (1966) report an experiment using this approach to reading with 6th to 8th grade children ; marked gains in reading ability were achieved with material that appealed to the disadvantaged. Other methods of stimulating reading interest have been the development of early reading books that depict the typical experiences of the disadvantaged child, rather than the middle-class families who at present crowd the pages of such textbooks ; Whipple (1967) describes the development of an early reading series of this type as part of the Great City School Improvement programme.

Several reading programmes are simply extended schemes that had

been available alsewhere in remedial centres ; though they may well increase reading ability, there is as yet little information whether one method of beginning reading is likely to prove more effective in disadvantaged areas. Dr. Goldberg (New York Conference) outlined her Beginning Reading Project in New York city, which was designed to throw light on this question. The project sought to answer four basic questions related to reading—whether the point at which formal reading was introduced affected later achievement ; the extent to which meaningfulness of content affected this development ; the effect of regularising the English language ; and the relationship between the child's perceptual, conceptual and linguistic development and his success in reading. A large number of elementary grade classes were used to test the effects of these various approaches, either singly or in combination ; for example the use of a simplified script such as the Initial Teaching Alphabet in conjunction with a compensatory programme of perceptual, conceptual and linguistic development. The number of different treatments and the large number of classes and schools caused problems of control, particularly where the start of the reading programme was to be delayed. This faced strong parental opposition. Other studies examining beginning reading methods for the disadvantaged are reported by Harris (1968). He notes that disadvantaged urban Negro children learn to read by the same methods that work with middle-class whites. In two projects he examines, the traditional ' basal ' appeared to be slightly superior to methods involving phonic systems or approaches based on the child's self expression through oral language. The traditional ' basal ' method was in fact treated as an experimental method, and did not suffer in comparison to other methods as a result of the ' Hawthorn effect '. Harris suggests that the traditional approach provided the necessary guidance and structure for teachers, sometimes not provided in more experimental methods. Dr. Goldberg reported a similar finding in her project ; some teachers using new methods continued to rely discreetly on traditional ' basal ' readers.

A second type of project that received considerable attention as a way of improving school achievement among the disadvantaged was the ' cultural enrichment ' programme ; it was this type of broad based enrichment that was felt to be needed by the ' culturally deprived ' to make classroom experiences more meaningful. ' Cultural enrichment ' was one of the earliest responses to the problems of the disadvantaged ; and ' Higher Horizons ' in New York city was probably the largest and most well known project of this type.

Higher Horizons

' Higher Horizons ' was based partly on an earlier successful project, ' the Demonstration Guidance Project ', which began in 1956. Working in a single junior high school with children selected for potential academic ability, the Demonstration Guidance Project was associated with marked gains in reading ability, as well as an increase in the number of students continuing into higher education (US Commission on Civil Rights, 1967). Higher Horizons was on a much larger scale, covering 12,000 pupils in its first year of operation (1959) ; these pupils were not selected. Besides strengthening the teaching force by remedial specialists, providing increased counselling and guidance services and encouraging the staff to have positive expectations about student ability, the project instituted visits to museums,

libraries, colleges and concerts 'to broaden the cultural background and horizons of students' (US Commission on Civil Rights, 1967). In 1964 evaluation studies were conducted in Higher Horizons schools and schools drawing from similar areas, to assess the effects of the programme on performance and attitude towards schooling. In only a few cases were differences found between the groups of schools, either on academic performance, attitudes toward school by the pupils, or classroom behaviour. These differences were hardly adequate justification for the project's annual cost of $3.8 million. As in the MES project, both teachers and parents were strongly in favour of the programme and thought it to be effective. The lack of measured success caused the programme to be abandoned, though some of its successful ideas were taken over by the MES programme (Wrightstone *et al,* 1965).

In contrast to the earlier successful Demonstration Guidance Project, Higher Horizons did not select students to take part; and as it was on a far larger scale, resources were spread more thinly. These changes have been cited as possible reasons for Higher Horizons' lack of success. More fundamentally, it has been suggested that the type of 'cultural enrichment' offered by programmes such as 'Higher Horizons' is too remote from the normal experience of the disadvantaged child to be a meaningful and effective way educational achievement (Goldberg, 1967 *b*), even though it may be a worthwhile objective in its own right.

At higher levels of secondary education, several programmes have been developed to increase the numbers of disadvantaged students reaching higher education. The 'Upward Bound' programme which began in 1965 initially provided a summer course for selected students of potential academic ability; follow-up was maintained throughout the school year. The aim was for a course in which students could make up lost ground and gain experience of working in a college environment, where most of the courses were run. Like Head Start, which began as a summer programme, 'Upward Bound' projects have in places expanded to full year activities, sometimes covering several years of schooling. The 'College Bound' programme in New York city is of this type.

The College Bound Programme

Students are selected on the basis of good attendence and conduct, though they are not likely without the programme to follow college preparatory courses. The 26 High Schools involved in the project (about one quarter of the High Schools in the city) are in poverty areas, and 80 per cent of the students come from Puerto Rican or Negro families. The project began with a summer course in 1967 for students in the ninth grade; from there, the students have followed a special four year programme that takes them through to High School graduation.

The conditions for entry to the course are multiple; students have to be willing to cooperate, and must show potential to benefit, though performance at the level of a potential college entrant is not required. There must be parental agreement for the student to take part in the course. Misbehaviour or poor attendance on the students' part result in elimination from the programme.

The programme itself has to be considered in various ways. Within the school, pupils are taught in small classes, a maximum of twenty stu-

dents, with individual tutorials to help in areas of the curriculum that the student finds difficult. In the basic subjects of English and mathematics extra periods of tuition are given to ensure a higher level of performance. The content of courses has been adjusted both to give more time to certain subjects and to make the syllabus more relevant to the students' experience, interest and development. An attempt has been made to improve the quality of teaching by recruiting both more male teachers—following the theory that stable male figures are absent from many disadvantaged homes—and more mathematics and science teachers. Further, a full time guidance worker is provided within the school for every 100 pupils in the programme. To improve links with the home, a full time staff of over 100 family assistants have been provided for the 6,000 or so students. Their task is to make contact with the home, particularly where students have social problems outside the school. In addition to curriculum activities, there are elements to broaden the students' experience by visits to theatres, concerts, museums, centres of historical interest and colleges, along the lines of the 'Higher Horizons' project.

Students who graduate through the 'College Bound' programme are guaranteed both financial assistance through college and a place in one of the 110 colleges and universities, including most of the prestigious East Coast private schools. A special 'College Bound Corporation' has been set up to administer and coordinate this part of the programme. To facilitate college entry, it is suggested that the 'grade point' should be lowered from over 80 per cent to 70 per cent for College Bound students. The first students are expected to graduate in the summer of 1970, numbering about 700 to 1,000. There are plans to raise this number to about 3,000 per year. Evaluation details are available for the first summer course. On achievement tests, students were shown to have made grade equivalent gains of between three months and one year after six weeks of instruction, though the averages in all subjects were still below normal (Hawkridge *et al,* 1968).

The expansion in numbers at college level and the growth of special programmes for disadvantaged college entrants has emphasised the need for continuing programmes at college level to take account of the different backgrounds of entrants. Gordon and Wilkerson (1966) from a national survey of colleges and universities conducted in the spring of 1964 estimate that about 37 per cent of institutions surveyed had some form of compensatory practice, though many of the programmes were on a small-scale, aiming at only a few students. Details of some of these programmes are outlined by Gordon and Wilkerson.

In this section we have reviewed a selection of programmes that have been used at school level. At first it was felt that strengthening and extending conventional practices could lead to substantial improvement in the educational performance of disadvantaged children. 'Cultural enrichment' and increased remedial reading facilities were among the most common elements in compensatory programmes. The results of Head Start and some of the experimental preschool programmes suggested the need for a more basic modification of the classroom learning situation if substantial improvement was to be achieved. 'Follow Through', the programme to follow Head Start at elementary grade level, has concentrated on developing effective curriculum approaches rather than expanding rapidly along the lines of the Head Start programme.

In contrast to preschool programmes, innovations at school level often

face more complex situations. In the first place, they have to bring about change in existing institutions, and must deal with teachers already committed to other methods. Preschool often has an open field. Secondly, there is probably greater consensus about the objectives of educational programmes at preschool and the early elementary grades, though there may be dispute about methods. An agreed objective is that these levels should teach basic skills necessary for effective participation at higher levels of education and for social competence. But as the age levels approach at which compulsory schooling ends, there is less and less consensus about the objectives that such compensatory programmes should have. Too easily keeping students in the educational system can become the primary aim of programmes designed for this age group, without any close inquiry of why this should benefit those who are restrained from dropping out. Beyond the compulsory level of schooling there are again clear objectives in educational terms for those who wish to qualify for college level. And here again we find that there are relatively successful compensatory programmes, such as ' College Bound '.

C. The Teaching Force

In the projects we have described, where the principal objective was to bring about change in the learning situation, the role of the teacher is clearly critical to the success or failure of the programme. Yet the role of the teaching force in compensatory education has probably received less attention than that given to new teaching methods or to the characteristics of the disadvantaged learner. There has been a tendency to blame teachers where programmes fail because of inadequate implementation, while success is attributed to new teaching methods more often than to those who use them—though there are a few studies, such as that of Weikart (1970), which suggest that different curricula may produce similar results if the teachers involved are highly motivated and backed by adequate resources.

The stereotype of the teacher in depressed areas is of one who is hostile or apathetic to innovation and change. Informal accounts of teaching in disadvantaged schools, such as those of Kohl (1967), Kozol (1967), and Dawson (1968), by emphasising individual success tend to reinforce this stereotype. The methods of a teacher aware how events and tensions outside the schools influence behaviour within the classroom, are contrasted with the approach apparently followed by the majority of teachers who avoid controversial issues and stick closely to a standard curriculum. Yet there is a risk that such comparisons will encourage the belief that the only solution to the problem lies in the recruitment of the ' right ' people to teaching jobs in disadvantaged schools, without any detailed examination of why teachers currently in such schools should be hostile to innovation.

In many compensatory programmes the tendency has undoubtedly been to appoint additional teachers, to set up supplementary programmes, or work with age-groups outside the formal educational system, as a way round the problem of changing the approaches of the existing teaching force. Yet such strategies eventually come back to the original problem : children taught in a sympathetic preschool situation must eventually join full-time schooling, and newly-appointed staff members may quickly assimilate their teaching styles to those prevailing throughout the school. It is perhaps ironic that many compensatory projects which were strongly com-

mitted to the view that pupil behaviour was adaptable by special programmes should often appear to accept that this is not possible in the case of teachers and to have tried to by-pass teacher influence.

In this section we look briefly at ways that the existing teaching force has been involved in new programmes, in training and retraining projects for teachers, and finally at new teaching resources that have been used in compensatory education.

Innovation and the Teaching Force

In the discussion of the Follow Through project, we outlined two very different approaches to the teacher's role in innovation. One type, the EDC 'Leicestershire model', was essentially 'organic' in development, working through teachers and schools sympathetic to the approach, and building from these 'growth points' by means of workshops and the advisory service. The teacher was expected within a broad framework to take the initiative in developing a suitable classroom environment. In practice, this method may spread at a relatively slow pace and be uneven in quality. But by placing high demands on planning and organisation by the teacher, it may well improve teacher morale, by emphasising the importance of their role. In contrast, the second type, represented by the IPI programme, has been fully developed and can be spread rapidly and evenly ; but the price is that the teacher's independence is curtailed in large areas of the curriculum ; she acts as consultant and monitor of the learning process, rather than the initiator of action. It would be important to know whether this change affects teacher morale, and perhaps more important whether any changes in teacher morale have effect on children following the programme. Many teachers may welcome the structure and guidance that a prepared curriculum such as IPI provide for them.

Both the time scale of many compensatory programmes and the methods of organisation they have used, have meant that in general the type of innovation followed has been closer to the second model. Decisions about the form of the programme and the type of resources have not been made at a classroom level, though effective implementation required the cooperation of teachers. Similarly, programmes have been terminated at short notice when evaluation studies have failed to produce any evidence that they are effective, even though the programme may have been popular in the schools. It seems probable that this pattern of innovation imposed upon the school from outside, and sometimes as rapidly withdrawn, has contributed to a decline in teacher morale. The many negative evaluation findings, the emphasis that the remedy lies either in the preschool years or outside the school's power, and the pressure for more radical changes in school organisation and control, have further contributed to this decline.

Strategies that emphasise a more independent role for teachers may be more successful in promoting morale. The 'workshop' approach to the development of lesson content, represented in EDC's Follow Through programme, encourages teachers to cooperate in formulating their problems and devising solutions. Group or team teaching is another method that promotes cooperation ; and centres where teachers from different schools can meet informally may help to reduce their isolation. Kozol and Kohl both underline this isolation of the teacher in the disadvantaged school, particularly when he is trying to introduce new methods. There is pressure

from other staff members for him to conform to the patterns of the institution, and need for him to pretend outwardly that he is as successful as other teachers in such traditional teaching skills as controlling classroom behaviour. Getzels (1967) has suggested that this isolation is particularly marked in difficult schools. A newcomer may attempt to introduce change on his own ; but without help and cooperation from other teachers, he is unable to maintain a style at variance with the rest of the teaching staff. Disillusioned about the chance for progress, he may dissuade new entrants from attempting to introduce change ; the most powerful opponent of innovation may be the teacher who claims to have tried it and failed.

More attention has to be paid to the effects of particular types of innovation on the morale of the existing teaching force and to the role that teachers are to play in such innovation. Certain strategies of change may reduce this morale, and in so doing, reduce the effectiveness of curriculum innovation. In addition there needs to be more information on the reasons why teachers should resist innovation or fail to take full advantage of the improved resources that compensatory programmes have sometimes made available.

Teacher Training and Retraining Programmes

Special training courses for new entrants to teaching proposing to work in depressed areas were one of the first responses to the problems of the disadvantaged. Such programmes are now found in a number of colleges. As Getzels (1967) makes clear, they may be essential if the initial shock on entry to teaching in a difficult school is to be minimised. He also suggests that if special training is to be carried through into action, it may be necessary to appoint teams rather than individuals to schools, and include not only teachers but counsellors, psychologists and administrators, to ensure that there will be general support where new methods are introduced. Other proposals are for ' demonstration ' and ' induction ' schools to serve as intermediate stages between college and school teaching.

Despite such special courses, and contact with depressed areas as part of college study, there is evidence that many aspects of teacher training may not encourage sympathy for the type of teaching problem found in depressed areas. Roberts (1969) has compared the effects of three different types of teacher college student attitude, with particular reference to inner city teaching. One of these was an experimental institution set up with the ' explicit aim of training teachers for urban areas '. The college had flexible patterns of organisation and close contact with inner city schools for teaching practice ; students also worked with city social agencies. The findings of the study show that in all three colleges less favourable attitudes developed to typical inner city teaching situations between the first and final year groups, though the experimental college was the most successful in reducing this trend. The author suggests that the academic emphasis in teacher education ' on the importance of mastering individual subject matter... has led trainees to place less value on other professional challenges, such as those of the slower learning situation found in urban problem areas '.

In-service training courses have played an important role in many projects. In many cases this is to make teachers familiar with new methods or equipment ; in others it has constituted an attempt to affect more basic

teaching attitudes that may influence educational levels one example are programmes to alter teacher expectation about the typical performance of disadvantaged children. It is possible that a low level of expectation produces self-fulfilling conditions and that both pupils and teachers come to accept low standards of performance. The work of Wilson (1963) demonstrating how diverging standards in areas of different social status come to be regarded as normal, has already been referred to in this context. In both the Banneker project in St. Louis (US Commission on Civil Rights, 1967) and the Higher Horizons programme in New York, teachers were encouraged to adopt a flexible attitude to levels of performance, and not to interpret IQ scores too rigidly. As the Banneker project contained a number of other elements—for example meetings to inform parents of the importance of their child's education, and radio and television programmes featuring the exploits of a mythical 'Mr. Achiever' to encourage pupil interest in school work—the effects of changes in teacher expectation cannot be assessed. The project appeared to be initially successful in reducing the gap by which reading scores fell below normal. Later evaluation, however, suggested that the momentum of the project had not been maintained, and the gap had widened again.

Experimental evidence for the effect of teacher expectation on pupil performance is presented by Rosenthal and Jacobson (1968). The researchers administered a test of general ability to children in grades one to six of an elementary school in south San Francisco, which contained children from mainly lowstatus backgrounds including a substantial minority of Mexican-Americans. Teachers were informed that the test would identify 'late bloomers', and were given names of the children alleged to show untapped potential. In fact the children's names were selected at random. Retesting was conducted after six months and again one year later. After one year the selected children showed significantly large increases in IQ, though tests at the end of the second year failed to detect any continuing differences betweeen the selected group and the rest of the classes. The gains were most marked in the first two grades after one year, suggesting that teacher expectation was altered most easily when children first entered school. At higher grades, greater familiarity with the children's past record might have made teacher expectations harder to change. The findings of this study have been technically criticised by Jensen (1969 *a*) for failing to follow strict statistical procedures. When these are used, he maintains, the overall gains in the first year are no longer significant. Though the findings of the study appear to be statistically inconclusive, it may be that something more persuasive than test results are required to shift teacher expectation in a way dramatic enough to produce measurable change in IQ score.

New Teaching Resources in the Classroom

Besides the expansion of the teaching force, there are alternative ways of increasing the number of adults in the school or classroom situation or the number of individuals filling teaching or quasi-teaching positions. The introduction of additional qualified teachers is likely to be one of the most expensive elements of a new programme, and by itself may not lead to a dramatic rise in pupil achievement, as the evaluation of the More Effective School programme demonstrated. In this project new teaching

resources were used to reduce overall class size, though in fact this change on its own had little apparent effect on teacher-pupil relationship in the teaching situation.

However, the introduction of new types of personnel, aides, non-professionals or volunteers, may contribute to a change in classroom organisation. Leggatt (1969) identifies three ways that these groups could affect the teacher's role : by providing a supplementary academic service, by performing ' cleaning up ' chores in the classroom, or by working with groups of children in the classroom under the teacher's direction. He notes that volunteers are most likely to be able to provide supplementary services—for example the manning of study centres outside school time—because they are usually unable to make regular commitments in school time. The time spent by the teacher in non-teaching activities, discipline and classroom organisation, has been shown to be longer in schools in disadvantaged areas, occupying as much as 50-80 per cent of classroom time (Deutsch, 1960). An aide to carry out ' mopping up ' duties will clearly improve teaching efficiency.

It is the third aspect of the use of non-professionnals in the classroom which may have the most effect on the classroom situation, making the teacher the coordinator of a team rather than an individual working in isolation. It is this aspect that has caused the most controversy. As Leggatt notes, besides introducing change into the classroom the increased use of aides may affect the school-community relationship. Many programmes have in fact stipulated that non-professionals must be drawn from the local community and the non-professional can act as an intermediary between school and community.

The growing number of non-professionals, particularly with the expansion of preschool education, has led to pressure for the position and career structure of this role to be formalised within the educational system. The aim is to develop a programme through which non-professionals, by learning ' on the job ' and part-time study, could eventually qualify as teachers.

An alternative method of increasing the numbers filling teaching or quasi-teaching roles is to use ' peer group ' teaching or pupils from higher classes to teach younger children. This approach is used by many teachers on an informal basis, when one child is found to be able to explain to other children a point in the lesson where they have experienced difficulty. Melaragno and Newmark (1968 *a*) report the results of a pilot study in Los Angeles to develop peer group and upper grade tutoring lower grades as part of normal classroom procedures closely related to general class work. The pilot study worked with Mexican-American children in first grade classes, aiming at improvement in reading skills.

Following a series of lesson observations, discussions with teachers and testing of children, it was found that Mexican-American children had difficulty in understanding many ' direction words ' that form part of reading instruction. It was decided to select ten of these words to form the subject matter to be taught. Initially the concepts were introduced at the large group or class level by the teacher; this was done several times, using different teaching methods. Few children mastered the concepts at this stage, though the authors suggest that it served to alert pupils to the concepts to be learnt. Students were then divided into pairs to work together ; it was found that average or above average students were able to benefit from this approach. As a third method, older children were introduced to work with

slower learners ; various forms of individual and small group tutoring were developed at this level. The fourth stage was for the teacher herself to work with individuals or small groups who were still in difficulty. For a small ' inattentive ' group, a further strategy of ' parents as tutors ' was employed.

Once the components of the tutoring programme had been worked out in detail they were tried in an integrated way in a number of classes ; and at the final stage the programme was implemented in a class by school personnel who had not been involved in its development. In all cases there was a marked improvement in the children's mastery of the ten concepts, and at the post-test stage the majority were found to have mastered them. The researchers suggest that the tutoring approach worked well with children who were inclined to favour cooperation rather than competition ; students took their role as tutors seriously and older tutors were reported to have improved their own work as a result of tutoring younger children. Some first grade children who were behaviourally difficult in class were able to cooperate with older children as tutors. Average or below average children were also able with training to teach younger children, with consequent improvement to their own morale.

The method of ' evaluation-revision ' used in developing this tutoring programme did not seek to compare its effectivness with other approaches ; the first stage, the authors argue, is to develop the approach, by examining how effectively components of the programme contribute to reaching the objectives. Following the pilot scheme, a more extensive programme is being set up, using the same tutoring principles but incorporating them more closely into the basic organisation of the school (Melaragno and Newmark *et al,* 1968 *b*). In this ' Tutorial Community Project ' it is planned that all grade levels will be involved both as learners and tutors.

Successful projects of this kind may well influence the traditional distinction between teaching and learning roles in the classroom. Both Professor John and Dr. Newmark (New York Conference) emphasised that placing children in a teaching role within the same school, or using secondary age pupils to work with younger children, creates intermediate positions that are neither strictly ' teaching ' or ' learning ' roles. Such roles may in turn reduce the formality of classroom organisation, by undermining the rigid distinction between those who possess knowledge and teach it, and those who have none and must learn.

The teacher's role is central to developments in the classroom ; yet many projects have tried to bypass or at least reduce the influence that the teacher can have on the outcomes of the programme. There needs to be more examination of the effects on teacher morale as a result of this type of innovation, and more information about the apparent resistance to change by teachers in depressed areas. For new recruits to teaching, there is some evidence that special induction courses may reduce the tendency of teacher training in general to turn attention away from the problems of city-centre teaching. In-service training is critical in the development of new programmes, but it should concentrate on changing basic teaching attitudes, such as teacher expectation of pupil performance, as well as instill new methods and techniques. More teaching resources can be mobilised by the use of people from the community in ' para-professional ' roles, and of other students in teaching or quasi-teaching positions. Both these changes are likely to influence classroom organisation, by reducing the more formal distinctions between teaching and learning.

Chapter IV

CHANGING THE RELATIONSHIP BETWEEN THE SCHOOL AND ITS SETTING

In the previous chapter we have examined programmes that set out to create new ' learning situations ', either by introducing new styles of teaching and curriculum and increasing the teaching resources available in existing institutions, or by extending educational provision for age-groups where the disadvantaged have often been poorly represented, at preschool and the year beyond compulsory schooling. In this section we turn to the second broad strategy of action for tackling the problem of educational under-achievement by disadvantaged groups. This strategy centres attention on the relationship between schools in disadvantaged areas and their social setting. This under-achievement cannot be countered purely by improving classroom work and school facilities. Change is required in the way that schools relate to other institutions that influence the child's development outside school—the family, the peer group and the community.

Though there may be general agreement about the need for change, the prescriptions for action derived from very different analyses of what has gone wrong vary widely. They can be grouped into four approaches. The first suggests that the failure in relationship between schools and other institutions is primarily one of communication. In disadvantaged areas, where parents may themselves be poorly educated and apathetic towards education, the aims and methods of the school are little understood. The home does not provide the child with the type of support available to the children of the middle-class home, where the educational process is more familiar to the parents. The main function of home-school links should be to increase the knowledge of parents in disadvantaged areas about current educational aims and methods. This can be achieved by improving contact between parents and teachers, by home visits, or by parents attending meetings and observing class work in schools.

The second approach suggests that the level of communication between home and school is not primarily responsible for this poor relationship. Unless the school's social position itself is altered, contact between parents and school will be effective only with a minority of parents who are prepared to adopt the patterns of behaviour required by the school. The low level of communication between home and school is not only the result of lack of contact ; it is the result of the wide gap between the values of the home and those of the school. The school is an institution that in part reflects the needs and values of wider society ; its main function in a disadvantaged area is to single out individual children for upward mobility into higher social groups, and to provide an important element of social control for those not

so selected. If the relationship between home and school is to be improved, the school has to become more open to the values of the community in which it is situated and accept some limitation on its present independence from the needs and control of that community.

Those who have argued for one or other of these two approaches have often tended to overemphasise their different standpoints both at a theoretical and at a practical level : one approach trying to mould home values to those of the school, and the other trying to change school patterns to accommodate different types of home background. Yet in practice it is not clear that the two approaches contrast so sharply. Schools which increase the level of parental involvement, by providing more information about what goes on in the classroom, by appointing community-school liaison workers, and by accepting the important role that such factors play in the educational performance of their students, are at least opening the channels through which their own organisation may be altered. Rather than treat the two approaches as being in opposition to each other, it would be preferable to see extensions of the school into the community as a possible stage on the route to more radical schemes in which basic changes were made in the organisation and control of schools to take more account of parental and community interest.

The third approach adopts a very different position on the relationship between the school and its setting. One main reason for under-achievement in schools in depressed areas is that the school is too closely tied to a particular geographical area. The influence of the school is weakened by the strong counterpressure exerted by family and community. As residential segregation on racial and social class lines intensifies, schools in disadvantaged areas will tend to draw from increasingly homogeneous populations. The effect of the school in countering the influence of the peer-group, family and community will be progressively reduced, unless action is taken to break this conglomeration of factors. Though programmes of school integration of racial and social groups could be justified on a number of grounds, their influence in raising educational performance has been a powerful argument (US Commission on Civil Rights, 1967). Several critics have indicated their destructive effect on community pride, particularly where they seem to imply that the best method of improving the performance of Negro children is to place them in majority white schools. Such programmes have been termed ' anticommunity ' (Jencks, 1969). They form a third distinct approach to the problem of changing the relationship between school and community.

The fourth type may combine elements of the other three strategies. Many of the changes required in school organisation will not easily occur in existing inner city schools. There is need of ' new institutions ' to replace or parallel schools, or to act as demonstration centres so that new methods can be seen to be effective with disadvantaged children.

Using these four different approaches we can examine changes in the institution of the school and its relationship with the wider community in four related sections :

a) links with the home, including parental involvement, the use of parents and aides from the community in the classroom, as well as programmes of home visiting used in some of the very early childhood intervention schemes ; these approximate to the first approach ;

b) changes in school organisation to reflect new relationships with the community, the ' community school ' and the issue of ' community control ' of the school system ; here we see indications of the more radical second approach ;

c) schemes to promote racial and social integration by moving children from schools in their immediate neighbourhood, or by redrawing catchment areas ; and

d) the creation of new institutions to assist or even replace schools in disadvantaged areas, for example, the setting up of model schools or even districts to try out a range of innovations on a ' demonstration ' principle, and the development of ' independent ' schools.

A. Links with the Home

The need for ' parental involvement ' has become almost an orthodoxy of compensatory educational programmes, both at preschool and at higher levels. The growing evidence that gains in performance made by children following special programmes are not maintained once the programme has been completed emphasises the need to influence parental behaviour as well. School-based programmes cannot compensate on their own for the effects of the wider social environment. Research studies, too, have documented with increasing precision the home factors that are most closely related to school performance. In the face of this evidence it would be difficult to deny that a programme of compensatory education to be taken seriously should have some element of parental involvement.

' Parental involvement ' is vague enough to cover a wide range of approaches with quite different objectives ; and this vagueness had led to considerable confusion about what should be meant by ' parental involvement ' and what its aim should be. In many programmes, particularly Head Start, ' parental involvement ' has been associated and perhaps at times confused with the need to employ non-professional assistants to supplement the teaching force. Mothers of children in the projects have been recruited and trained to fill these roles, thereby appearing to solve at a single stroke both the objective of ' parental involvement ' and the need for new teaching resources. More recently ' parental involvement ' has been linked to the movement for ' community control ' of schools—the partial devolution of power over school districts on to more locally based committees, and consequently some parental participation in the running of schools. Yet both these changes can only involve a minority of parents directly ; they form one strategy of achieving ' parental involvement '.

If ' parental involvement ' is defined as a process whereby parents of a particular group of children are brought into a new relationship with the school and its personnel, then the use of parents as aides or the idea of ' community control ' are possible ways of achieving an increase in parental involvement. If some school personnel, or those who exercise control over the school, are more truly representative of the community, parents may be more inclined to approach the school.

Several early projects developed programmes of parental involvement to extend the school's influence over the home. Parents were viewed as being basically well disposed towards the educational process but ill-informed about the details, particularly of new methods. They did not realise their own importance in reinforcing school-based learning, nor did they appear to

understand the relationship between success at school and subsequent career. The Banneker project in the ghetto district of St. Louis (US Commission on Civil Rights, 1967) placed considerable emphasis on the value of increasing information about schooling and the role of education in general. The project held meetings for parents where they were told about the benefits in terms of higher earning power that would follow if their children remained at school. They were told, too, of the risk of unemployment following school drop-out. Teachers visited homes to reinforce this message. The mass media was used to create a favourable image for good school attendance and performance. More locally, shops carried educational displays, and were encouraged to send ' truants ' back to school. Similarly, in the ' Higher Horizons ', project parents were used to extend the school's influence ; they checked that their child's home assignments had been completed, and in return were more closely informed of the progress being made. Though the Higher Horizons project failed to produce any significant improvements in performance, the Banneker project succeeded at first in reducing the margin by which the schools fell below normal. As both projects had complex programmes of action, it is not possible to indicate whether the form of ' parental involvement ' they operated was successful.

Providing more information about the educational process may bring the home and school into closer contact ; but it is doubtful how far the lack of information about education has contributed by itself to the disparity between the performance of disadvantaged children and other groups. There may be more basic reasons why the disadvantaged have failed to take advantage in the past of information that has been available. Though those who are responsible for educational programmes may stress the links between education and subsequent career, the relationship may be complex. It may be, for example, that among the disadvantaged an improved educational standard is less likely to bring improved occupational status than among other groups. For racial and social discrimination intervenes. School ' drop-out ' among Negro youth, far from being based upon ignorance about the importance of education, may be based on the accurate prediction that remaining at school for a further two years is likely to make little difference in future earning power (Tannenbaum, 1967).

A second method of increasing parental involvement is to encourage parents to come into the school more frequently. Though this can be achieved by holding meetings, ' open days ' and other special occasions, it is likely that more sustained programmes stand a greater chance of influencing parental behaviour, particularly where parents are involved in classroom activities. The growth of community organised preschool facilities under the Head Start programme has increased the opportunity for parents to participate. As Professor John pointed out (New York Conference), it is easier to involve parents in the running of new institutions than to try and involve them in institutions such as schools which have perhaps rejected them in the past. It may be easier, also, to involve parents of this age-group, when interest in their child's progress is still high—as yet unaffected by any low grading given by the school.

Though many preschool groups have parental involvement of this kind, by using some form of ' parent rota ' or ' open-house ' policy for parents who wish to join in, there have not been many attempts to develop a systematic programme related to the preschool work followed by the child. Programmes of this type raise obvious difficulties where mothers may be in full-time

employment, or where there are younger children to look after. In this case, an alternative strategy such as home-visiting may have to be adopted, where visits can be timed to fit in with work patterns. Programmes, too, have often failed to involve fathers ; both the work pattern and the values of the community may conflict with fathers attending preschool groups. Even if shift work makes attendance possible, many may be deterred by the aggressively feminine atmosphere of some preschool groups and the lack of any specifically male role in such centres. To counter this, several of the experimental preschool groups deliberately included one male teacher to provide an adult male role-model with whom the boys in the group could identify. Two projects which handle regular parental attendance at preschool groups in a systematic way, demonstrate the return that such involvement may bring.

Mother Training Programme, Nashville

Following the Early Training Project (ETP), a larger scale project was mounted by the same group in Nashville specifically to investigate one of the findings in the ETP study. This was the so-called ' diffusion effect ' (Gray and Klaus, 1966). In the earlier study it was noted that younger siblings of children in the experimental group were significantly more advanced on intelligence test scores than those of the control group. It was suggested that the effects of the preschool project, particularly its home-visiting component, were transmitted to younger children via the mother. The second project was to explore this phenomenon further. Four separate groups were set up, with various combinations of home-visiting, preschool attendance and mother involvement. Mothers in the ' maximum impact ' group, where children attended the preschool centre's enrichment programme, came themselves regularly to the centre, at first to observe their children in the classroom, later to learn the significance of the approach used in the group and the relevance of educational materials for the programme, and then finally to participate in the teaching process themselves. Initiation into a teaching role was preceded by close observation and evaluation of a teacher working with a small group. The mother began by taking part during an informal period. She was introduced to the children as a ' teaching assistant '. Later the mothers progressed to helping in large group activities under the direction of the lead teacher. At the end of a few months, 17 of the 20 mothers with children in the group were participating in the classroom, the majority in informal situations, though two had reached the level of working with small groups of children on selected activities. Studies of the mothers revealed that besides an average gain of six points on an adult intelligence scale during the programme, several had undergone ' life-style ' changes, enrolling for further education or gaining employment with community projects. Informal observation of mothers and children suggested that mothers were able to further the objectives of the programme outside the classroom. On a group trip, for example, mothers were consciously using new experiences as teaching material (Horton n.d.).

The Bloomingdale Family Program

A second less experimentally based project, the Bloomingdale Family Program in New York, organised a parent programme to run in parallel

with a preschool group. Initially when the programme began in 1966 more than one hundred families were enrolled, their children joining one of a number of preschool groups. At the outset parents were informed about the programme for their children and the role they themselves were to play. Parents served as 'teacher-assistants' in the classroom on a rota; this was accompanied by frequent discussions on problems that occurred and ways of improving classroom procedures. When they were not involved in the preschool group, mothers could use another room for meeting and discussion with other members of staff. Studies of the project (Auerbach, 1968) suggest that mothers' attitudes had been significantly altered. They had a better understanding of how adults could stimulate children's development; they realised the importance of the child learning informal skills, rather than pressing for early mastery of skills such as reading, and they felt increased confidence in being able to handle both their own and other children.

If 'parental involvement' is to be more than attendance and observation by parents in schools, special programmes have to be devised and staff recruited for the purpose. The Bloomingdale project (Auerbach, 1967) had an organiser primarily responsible for the parent programme; her role was quite distinct from that of the organiser of the preschool groups. Where there is no programme, the role of parents may come to be that of completing routine classroom tasks. It is not clear how far such a role will help parents to carry on educational work outside the nursery or classroom. Yet Egland's survey (1966) of the use of parents in Head Start centres revealed that parents had generally been used to fill this type of role.

Another form of parental involvement, in addition to voluntary participation in classroom work, is to employ parents as classroom aides. The use of aides as a way of reducing the amount of time spent by teachers on routine matters has already been outlined in the previous chapter. From the present point of view, the use of parents as paid aides is a way of involving a small number of parents in the classroom and thereby forming a group to link other parents more closely to the school system. The special qualifications possessed by aides as parents and members of the local community have been recognised by a number of projects. Such people can operate effectively as school-community liaison workers, or as 'home visitors' because of their knowledge of and acceptability to the community. However, the role of aides as community liaison workers may, to an extent, conflict with their role of teacher support, if the school retains its traditional relationship with the community. Leggatt (1969) suggests that aides will tend to identify with the schools where they work and where their career prospects lie, rather than the community outside. They will tend to fill subordinate roles in the school rather than positions of liaison between school and community.

Home Visiting Programmes

Attendance at the school or preschool centre implies some initiative on the part of the parent. Critics often point out that parents who are most in need of such contact may be the last to display this initiative. In such cases the school-community liaison worker can help to increase contact by making home visits. Several Head Start projects began by making

home visits, using doorstep 'canvassing' to locate children eligible for preschool centres. The results of a direct approach of this kind can result in very high response rates. If conventional methods of recruitment had been used, it is likely that response rates would have been far lower and parents dismissed as apathetic or uninterested in education. Once contact has been made in this way, programmes have demonstrated that the relationship can be maintained with a majority of parents, by attendance at the centre or by home visits from the school-community liaison worker or teacher.

Home-visiting programmes go beyond this initial home contact, and seek to develop educational programmes within the home environment on the grounds that the maximum effect on home conditions could be achieved. Two major considerations have shaped the form of home intervention programmes, particularly the age level at which they are aimed. Weikart (1967 *a*) points out that even by the age of three years 'there are dramatic differences between privileged and under privileged children': he cites the research of Pasamanick and Knobloch (1961) and of Bayley (1965) to suggest that these differences emerge in the 15-36 month period. Preschool programmes starting with three year olds are already remedial, and the conclusion is drawn that earlier intervention still is essential.

A second related consideration has been the likely effect of preschool work conducted outside the home on the factors in the home that research has isolated as critical for the child's ability and school performance. 'Parental involvement' in preschool work has often been routine; and it may be that this kind of participation does not change parental attitudes. It may be that certain behaviour will be seen by parents as appropriate in the preschool centre, but not be transferred to the home situation. Once the programme is completed, the gains achieved by the child may be gradually lost as old patterns of behaviour are re-established.

Research into different types of child socialisation has demonstrated that differences in mother-child interaction and communication styles correlate closely with variations in cognitive ability (Hess and Shipman, 1965). Such styles were better predictors of a child's performance than broad socio-economic variables'. Miller (1968) distinguishes between the effects of objective elements in the environment and of active agents; he argues that the most important aspect of a stimulating environment lies 'in the behaviour of the effective environmental agent who interacts with the child and mediates between the child and the objective environment'. In most homes such a person would be the mother. Combining the findings for the best age for intervention with the evidence of the effects of mother-child interaction styles provides the basis for home visiting enrichment programmes.

Home Visiting in the Early Training Project, Nashville

The home visiting component of the ETP, which linked together the summer preschool experiences of the children in the project, may be responsible for some of the long term effects. Despite the relatively short length of the actual preschool programme, gains were maintained over the period of the study, and significant differences between experimental and control groups have persisted for several years after the programme was completed. The so-called 'diffusion effect' (Gray and Klaus, 1966)

appeared to operate both vertically to younger siblings of children in the programme and horizontally to children in the local control group, whose mothers tried out what they had learnt from friends and relatives about the programme. It may well be that home visiting played a considerable part in this effect. The home visitor worked with sets of materials developed from those in use in the preschool centres, taking these into homes to demonstrate their use to mothers and children.

The Ypsilanti Home Visiting Project

Weikart and Lambie (1968) report the details of a pilot project providing 35 four year old disadvantaged children with a one and a half hour per week home visit over a period of 12 weeks. Home visitors conducted a programme that involved both mother and child, and aimed at five basic areas—manipulative activities, dramatic play, perceptual discrimination, classification and language development. The content was based on a modified version of the curriculum developed in the Perry Preschool Project. The project aimed also to influence the mother's interaction with her child, altering her teaching style towards that of successful mothers, inceasing the complexity of language used with the child, and changing the mother's methods of controlling the child. Evaluation of the project showed that children had made a significant gain of eight IQ points on the Stanford-Binet, from 95.3 to 103.3, compared with a very small rise in the control group's score. These gains were said to be equal in size to those of much longer programmes conducted outside the home. Weikart and Lambie conclude from their pilot study, 'the children who come from the more environmentally deprived homes and who had mothers rated as 'bad' had the highest IQ gain. This finding supports the contention that deprivation is a function of the environment created in the home by the mother, rather than a general socio-economic condition'.

Infant Education Project, Washington DC

Shaefer's project with disadvantaged Negro children in Washington DC (Hawkridge *et al*, 1968) worked with a much younger age group. 28 disadvantaged male children were selected for the project on the basis of family incomes and social criteria. The experimental group received home tutorials for one hour a day five days a week over the 15-36 month period. The content of the tutorial was not specified in detail in advance; the tutor was free to develop materials in response to the child's needs and interest. But the main focus was on language development. Participation by the mother or other family members was welcomed, but not essential to the project, which was primarily a tutorial for the child. Evaluation of the project when the children were three showed that the experimental group had a mean IQ score 17 points higher than the control. This large difference was primarily the result of decline in the score of the control rather than an increase by the experimental group. Shaefer (New York Conference) stated that the experimental group showed deterioration once the programme was completed; he suggested that this decline might be attributable in part to the lack of involvement by mother or other family members in the tutorials.

Parent Education Programme in Florida

Gordon's intervention programme in Florida (I. J. Gordon, 1967) began almost at the birth of the target population. Mothers in the sample were contacted either at the maternity hospital, or six weeks after child-birth, when the initial home visit took place. An experimental group of 150 and two control groups of 26 and 30 children were formed, using the geographical location of birth to indicate which group the child was to join. Home-visiting was made by 'parent educators', themselves from disadvantaged areas and trained specifically for the programme. Instructional visits began when the infants were about three months old. A series of graded exercises were developed, based partially on the norms of development for the age group in question. The home visitor demonstrated the exercise with the child to the mother, who was then asked to practice the tasks with her child. Emphasis was placed on making the mother-child interaction take place regularly and naturally, so that it did not develop into a formal and restricted routine. Though there was considerable turnover in both experimental and control groups, interim results at six months indicated that the experimental group was more advanced in certain areas of development. At twelve months, results from a limited number of children again indicate that children from the experimental group were more frequently ahead in levels of development. As the exercises used were very close to the test measures employed, a different development scale was also administered to children who had reached twelve months. Here again the experimental group was significantly more advanced on the total score and two component scores.

Despite the success of these home visiting programmes, Di Lorenzo (1968) reports a project at Plattsburgh that failed to produce any significant evidence of improvement. Shaefer's finding that gains were not maintained even with such early intervention indicate that home visiting programmes must involve the mother directly if they are to retain a long term impact. Continued visiting at less frequent intervals to provide sustained support for mothers may be one method of extending the programme's effects.

We have traced the development of programmes concerned to improve the links between home and school, from a point where the main objective was to provide more information to parents about the educational process, to a position where the aim is to change the relationships within the home, principally between mother and child. Though home visiting may be developed to improve links between home and school, there are good grounds for treating home visiting programmes as a rather different strategy. In many ways they present an alternative method to the conventional school-based programme where children are brought to a centre. In the search to produce lasting improvement in the educational performance of disadvantaged children, educational programmes have been drawn out from their traditional base in the school. As home factors are isolated as those most closely related to educational performance, it is these that programmes must attempt to tackle. Home visiting programmes is one method of doing this.

'Parental involvement' is central to the development of successful compensatory programmes. It is unlikely that providing more information about education to parents will on its own produce the right kind of change. Aides and community liaison workers drawn from the community can help

to strengthen the links between home and school and provide channels through which information can be effectively passed. Systematic training programmes for mothers in preschool work have been shown to bring about change in parental attitudes towards educational methods. Home visiting programmes for children in the preschool period have produced substantial gains in measured intellectual ability, often in shorter periods of time than some of the intensive preschool programmes.

B. School and Community

The second approach to changing the relationship between the school and its setting suggests that it is the school which must adapt to its community. In this section we look at some of the changes in school organisation and control that are associated with a relationship of this type. In the typical disadvantaged school home-school links are weak ; the school is an isolated outpost, representing the values of wider society, but out of touch with local community needs. Teachers are likely to live outside the immediate area of the school, further reducing the chance of social contact between parents and school staff. In a large city school system people may feel that they have little influence on the way schools are run. Appointments and administrative decisions are taken centrally. Though these may seriously affect children in disadvantaged schools, parents may feel powerless to influence the decisions.

Attempts to change the nature of the relationship between school and community, by making the school more receptive to local needs, may differ from projects described in previous sections. Often no specific programme is drawn up. Following the classic lines of community development, the aim is to stir up community members to act for themselves. Precise outside determination of the programme is out of place. Once the movement is under way, project workers act in an advisory and consultant role to indicate resources and put forward ideas.

The development of ' community schools ' has often been suggested as an innovation that will increase contact between school and community. But the term has been interpreted in a number of different ways, some of which imply more radical change in school organisation and control than others. Writers on the ' community school ' have distinguished four main types : (*i*) a school with a community catchment area, in contrast to schools selecting pupils from a number of communities : (*ii*) a school which is used extensively outside formal school time, both by children of the school, and by community groups : (*iii*) a school which concentrates on local community studies ; and (*iv*) an institution that serves the community and focusses community pressures for change by being involved in local problems and progress. Obviously there are close links between the four types. Schools which draw pupils from a single area may find it easier to engage in community study ; and it may be easier to arrange extended use of school premises, if groups do not have to travel long distances. A school with close ties to an area may begin to take on a more active role in community development.

The idea of the school as a ' community institution ' has a long history in American education ; and this has been associated with the idea of strong local control. The apparent need for larger administrative units has meant

that smaller school districts have merged with others, and the large city school districts are of substantial size. The traditional feature of local control has rapidly disappeared. Those who press for 'community schools' and 'community control' of the school system in large cities, are partly basing their argument on what is held to be a traditional strength of the school system—its responsiveness to local needs through local control. In this process, the meaning of 'community' has undergone a considerable change. Instead of a residential area possibly including a cross section of society, 'community' increasingly refers to a homogeneous social or ethnic group which is residentially segregated. And so 'community control' means in practice control by groups who in the past have been excluded from such positions, rather than the traditional conception of control by a cross section of the community.

In suburban areas where schools draw from a basically middle-class population, such changes as are implied by the first three types of 'community school' do not seem likely to threaten the traditional function of the school; for there is a close fit between the values of the school and the community. In the urban centre, where schools draw predominantly from working-class or racial minority groups, differences between the standpoints of the school and the community may be emphasised by changes involved in setting up a 'community school'. To stress that a school serves a particular community, and to introduce 'community study' as a curriculum subject, may underline the need for further changes in school organisation. Perhaps the dilemmas raised can be avoided. Extension of the school day, the use of the building by adult groups, can be defined purely as extensions of existing practice. Local studies could be taught in a neutral way that was not related to any attempt to encourage pressure for change. Yet the school cannot be completely isolated from change taking place outside; and to emphasise 'community' aspects of change in school organisation may lead rather more rapidly than anticipated to a point where the school is drawn into community development.

The issues raised by the 'community school' may seem remote to the problems of educational systems where the links between school and community have not traditionally been emphasised, and where the extreme patterns of segregation found in the American inner city are not as yet present. In such systems, moves towards the 'community school' may be restricted to the first three types—extended days, community studies and so on.

Fantini and others however (New York Conference) emphasised the speed with which the position had changed in the United States, following the apparent failure of compensatory educational projects (defined as projects which aimed to reform the traditional school structure) to close the gap between the disadvantaged and the rest of the population. Changes relating to the first three types of 'community school' may lead on rapidly to more radical changes in school organisation. An example of this can be seen in the development of 'community study' curricula. At first this may be neutral in intention, and involvement in the community may be to bring home points made in the classroom. But several projects have moved beyond description and analysis of the urban environment to ways of intervention and change. One of the class work-books for the Center for Urban Education's urban studies curriculum is entitled, 'Planning for Change—a book about New York City, and how to change it'. Included in

the work-book are studies of successful community action in changing planning decisions, and details of local organisations and pressure groups. As schools move towards this fourth type of ' community school ', and become involved in community development, there are likely to be changes in school organisation, though these as yet are not clearly worked out.

Against this background of discussion we can examine special programmes. Schemes to extend the role of the school by keeping buildings open during the evenings for less formal activities have a long history in cities such as New York. The All Day Neighborhood School (ADNS) programme started as early as 1942, and was in fact preceded by pilot projects in the pre-war years.

The All Day Neighborhood School Programme

The programme is at present operating in 15 New York City elementary schools, all of which are Negro or Puerto Rican majority schools. Additional teachers work from late morning to the evening, collaborating with class teachers during the school day, and running ' clubs ' after school for selected children who have particular home difficulties. These clubs offer more informal activities, following up interests aroused by classroom work and providing more individual support for children with home problems. To strengthen links between school and community, the programme has a community relations consultant and a number of ' school-community ' coordinators.

An evaluation study carried out in 1965, comparing children in ADNS schools with children from similar schools without compensatory programmes, found no differences on a range of ability and school achievement tests. Follow-up studies of children who had followed the ADNS programme, also failed to detect any significant gains (US Commission on Civil Rights, 1967). As the programme has been operating for some years, there seems a risk that it may have become ' institutionalised ' and may be seen as part of normal schooling by both pupils and teachers who participate in it. As an innovation it has been bypassed by the pressure to widen the community school concept beyond such changes as the provision of the extended day.

More recent developments suggest a wider approach. Gordon and Wilkerson (1966) outline the specification for the community school programme of ' Community Progress ' in New Haven in the following terms : ' the community school concept in New Haven views the school not only as an educational center, but as a neighborhood community center. It should provide facilities for cultural, recreational, and club activities, serve as the center for community services, provide health, legal, counselling, employment, and other service activities, and be a center of neighborhood and community life. It should be available to help the community in the study and solution of local problems'. In contrast to the approach implied by the previous project, these ideas indicate a school that is continually in process of adaption to new situations and needs ; such wide ranging aims may prevent the school settling down to a particular institutional pattern, allowing innovation and change to be easily adopted. Though such flexibility may appear ideal in theory, the practical problems it introduces for school organisation are considerable, as the development of the Adams-Morgan community school demonstrates (Lauter, 1968).

The Adams-Morgan Community School

Like many schools in Washington DC, Morgan Elementary School was virtually 100 per cent 'coloured'. Its physical condition was poor ; it had neither a library or a dining room, and classrooms were over-crowded and lacked basic equipment. Meals were taken in shifts in a corridor, and several classes were taught simultaneously in a large echoing auditorium. The physical amenities of the area were no better ; for there was poor housing and a lack of open space, and the district was marked by high delinquency rates. The population was highly transient, with a 40 per cent turnover of pupils in a year. A neighbouring school (Adams), with a different type of catchment area, drew its pupils mainly from middle-class black groups, though private redevelopment had brought in a number of young white professionals to the district. These tended to be liberal, politically active and with a desire to work towards an integrated community. Because of this potentially 'mixed neighbourhood' the idea of a community school run by people in the area was accepted by District of Columbia Board of Education in May 1967. The project became a testing ground for the idea of local control in education.

The project had a number of innovations. Participation by people outside the school in its activities was obtained by giving effective control of the school to Antioch College, although the main funding still came from the Board of Education. The college supplemented the funds by providing guidance and employing senior staff. A joint college and parents 'advisory board' was set up to select staff, determine curriculum and allocate resources. They would 'control' the school. Staffing of the school was to be highly differentiated ; instead of 28 regular teachers and three specialists, there were to be only 17 certified regular teachers. They would be supplemented by 'interns', 10 from Antioch College and 14 from the community. As 'interns' earned a little over half the pay of qualified staff, the adult-child ratio could be significantly improved without an increase in total costs. Staff were divided into teams responsible for 100-110 children, grouped in four adjacent rooms. This was termed 'team cooperative teaching'. The children in these groups were of mixed ability and of mixed age, a three to four year age span being covered in each large group. Each teaching team had a cross-section of different types of staff.

There were several reasons for using 'interns'—perhaps the most important being their effect on the adult-child ratio in school without dramatic increase in cost. But in addition, the positions created career opportunities for people living in the ghetto. The idea of getting enthusiastic young people from a prestige American liberal arts college into a disadvantaged school was also important. Training and supervision of the interns was the responsibility of the qualified staff and personnel from Antioch College.

At the curriculum level, an open-ended situation was created. It was neither structured nor sequential, but was designed to meet the needs of a population whose abilities, stages of development, motivation and interest varied enormously. Children entered at their own level, and developed at their own pace ; the curriculum was designed to be relevant to their interests. It was a problem-solving and pupil-centred approach to education.

Within each group of four rooms, pupils had a free choice of activities. They could move about at they wished, returning several times to the same

activity. The school and curriculum provided a variety of experiences and material, and the staff a guiding, motivating, supporting and stimulating force. Pupils were encouraged to talk and write freely about everything they did.

Staff training was a critical element in the programme. Professional staff from two separate schools had to be trained to be more responsive to parents. At present teachers have a one year contract, given by the ' parents ' committee who are finally responsible for the school. Within the class, teachers had to be trained to deal with mixed ability and mixed age groups, who were following a new curriculum. As well as this, there was training and supervision of ' interns ' to be carried out. An in-service course of three weeks was held before the project started, and further in-service courses were conducted during the course of the project.

Assessing the effects of so many changes in the school is impossible at this stage. Research was not built into the programme at the outset, and the difficulties of evolving ' standards ' of assessment for the programme of this kind may make formal evaluation nearly impossible. A more subjective assessment reveals critical points in the development of the project that may influence its success.

At the outset there was a lack of clarity about the project's organisation ; particularly the relative positions of the college and community in controlling the school programme. It is clear from what has been written about the school that the triangular relationship between college, the school and school board was by no means easy and peaceful. The attempt at this type of cooperation cannot be considered an unqualified success ; and the areas of cooperation between college and school have shrunk over the past two or three years.

Changes in the school were comprehensive ; so much has changed in a short period of time that it is impossible to assess the impact of particular changes. The programme was rushed—there was inadequate time for staff recruitment and training, and many of the curriculum innovations were untried, and lacked adequate materials for successful implementation. The project developed in a period of growing conflict between white and black in American society. This was reflected in the problems of cooperation between a black community and a white college. A school trying to achieve fundamental reorganisation at such a period was in for a difficult time. The school, too, received a succession of visitors, attempting to see for themselves the impact of a ' community school '. The process of change took place in the public eye.

' Community schools ' of this more radical type are almost bound to become centres of controversy and struggle between conflicting groups where they operate in areas of social tension. The Head Start group in Mississippi, the Child Development Group of Mississippi (CDGM), though operating in a very different context from urban ' community schools ', faced similar experiences.

The Child Development Group of Mississippi

The CDGM took a more radical line than most Head Start groups about the involvement of local people and the relationship between the child development centre and the community. Levin (1967), for a time director

of the CDGM, points out that despite emphasis on community participation and parental involvement, the Head Start journal underlined the professionalism of the programme : and with some notable exceptions the non-professional in Head Start generally was confined to ancillary and non-creative functions. In the CDGM, however, at both the headquarters and the local Head Start centres, of which there were 143 serving 14,000 children in 1966, the accent was on local recruitment. 50 per cent of the staff were local at the headquarters, and 90 per cent in the centres. Each centre was set up only if there was sufficient local initiative, and a committee of poor people was responsible for the ' planning, progress, hiring, administration and ultimately the success or failure of the center ' (Levin 1967).

Involvement with the Negro community at that time in Mississippi inevitably meant support for political and civil rights ' movements, and the CDGM became a centre of controversy. The community approach of the CDGM meant that the preschool centre became much more than an educational institution ; it was the focus for wider community development, which in the end, it was felt, would contribute to educational progress. Supporters of the CDGM argued, ' the first stade in education is to explore the feelings and factors in the child's home and community life that cause him to be classified " disadvantaged " and then to explore these things with the experts in this area of knowledge, i.e. his parents and then to experiment cooperatively with them in developing processes and procedures for coping with some of these conditions... ' (Greenberg, 1967). The emphasis on the importance of the parental role and of events outside the school, contrast with the approach of giving parents a subordinate position in the classroom. In the CDGM teachers, the ' experts ' in the conventional sense, have to cooperate with parents ; and it may be that their primary task is to promote community development rather than work for specifie educational progress. Educational success is closely bound up with the general status of the community. A similar approach, though a less politically militant one, is being followed by another Head Start group in Mississippi, the Institute of Community Service at Holly Springs in the north of the state.

Such changes are likely to be resisted by those who deny that conditions of controversy and conflict are favourable to educational development. They may deny that there has to be basic change in the relationship between school and community, and instead concentrate on less radical types of ' community school '. Within schools there may be strong resistance to change that radically alters school organisation and teaching roles.

If programmes of parental involvement are a way of breaking down the barriers between home and school, then the idea of ' community control ' of schools and school systems is a further stage in transforming this relationship. At present the position is too confused and entangled with wider political issues to be clear how far ' community control ' and ' decentralisation ' of control in certain inner city districts has changed relationships within the public school system ; and how far such changes should be interpreted as educational rather than political developments. These changes in organisation and control have not as yet been clearly linked to changes at other levels of education—for example, improved school performance.

Fantini (1969) has argued that compensatory educational programmes largely diagnosed the problem of under-achievement as being the result of ' deficits ' in the learner's experience. As a strategy it was thus remedial in

outlook, and there was little attempt to achieve more fundamental institutional change. Even such projects as Head Start aimed at tackling the learner's deficits though at an earlier age. The cause of such under-achievement for Fantini lies in the failure of the educational system to change in response to new needs ; it is not only the inner city child who is put at a disadvantage by the educational system, but equally the suburban middle-class child, bored by an unchallenging curriculum (Fantini and Weinstein, 1968 *b*). The failure of many compensatory-remedial programmes to achieve lasting improvement, and the attention such failure has directed on the educational process, has highlighted the inadequacies and inequalities of the system and brought the ' revolt of the client ' (Fantini, New York Conference) more quickly forward. The pressure for community control, often associated with politically militant groups, is an expression of the feeling that the system is inadequate for present needs and that the existing structure of authority has little interest in promoting radical change.

Though the movement for ' community control ' could hardly be defined as a ' strategy '—in Fantini's analysis it is an almost inevitable process following the public failure of partial reform—it may provide an opportunity for fundamental educational changes. Fantini argues that the new groups who gain control where decentralisation has occurred are acutely aware that they have come to power on a wave of dissatisfaction with the school system. To retain power, they need evidence that they have brought improvement.

Whether such dramatic analysis of these developments can be transferred to other countries with different racial and political situations where there are different attitudes to the importance of local control over the school system, is a hard question to answer. It may be that moves to increase parental participation in the school process, and for a change in the relationship between school and community, will lead to an increased demand by the community for control. The strategy of compensatory programmes of school reform and the presence of action-research projects in disadvantaged areas, focusses public attention on the importance of education and on the fact that children in disadvantaged areas perform below normal. As these results become public, the pressure for schools to be more accountable to parents is likely to increase. Attitudes which are currently expressed by absenteeism, early leaving and disinterest in the school process, may rapidly be converted into militant demands for basic change. Fantini may be right to suggest that programmes of compensatory education bring such a situation more rapidly forward.

The programmes we have reviewed in this section range from small extensions to the conventional school process, to a point where the major aim is community development rather than that of education alone. This means that the success or failure of such projects cannot be measured, at least initially, in conventional terms. Some of the more radical changes we have described produced considerable upheaval within the schools, and it will only be in the long term that the results of these changes can be assessed. Though schools may wish at first to make only small concessions to community needs, many Americans stressed how rapidly the demand for greater participation and control by the community had developed. Whether similar changes will occur where there are different social conditions and less tradition of local educational control, is hard to assess. It may well be that compensatory programmes will speed this development, by focussing public attention on the standards of education in depressed areas.

C. Integration Programmes

Programmes for integrating schools on an ethnic or social class basis indicate a very different concept of 'community' from that underlying the discussion of 'community schools' and 'community control'. Instead of 'community' standing for a relatively homogeneous geographical unit, where the children attend a single school, a much wider reference is implied—one that includes some sort of cross section of wider society. Where the present distribution of the population, segregated by race and class, makes it impossible for neighbourhood schools to be composed of children from varying backgrounds, the plan is to set up programmes that integrate the schools even though the neighbourhood itself remains segregated. The experience of integrated education should lead to greater acceptance of an integrated community. Cohen (1969) cites evidence from a number of sources to indicate that Negro students who have attended integrated schools or colleges are more likely to live in integrated areas than Negroes who have attended segregated institutions. Lower status high school educated Negroes who attended integrated schools are more likely to be found in integrated areas, than higher status college educated Negroes who attended segregated schools.

To argue for integration programmes on the ground that they would, in the long term, help to create an integrated community might have been adequate in the past. In the context of compensatory programmes, however, it was necessary to assess the short term effects on educational performance. The tendency, perhaps unfortunately, has been to evaluate integration programmes on this short term basis; and this concentration on measurable output is at least partly responsible for some of the opposition that has formed against such schemes in both white and black communities.

St. John (1970) reviews a number of studies that have examined the relationship between ethnic and social class segregation and school performance. The problems of conducting such studies are formidable. Before the Coleman Report, St. John concludes that the evidence on integration was that it 'apparently had a positive effect, though it is hard to be sure, since other variables could account for observed trends'. The Coleman Report itself revealed the close relationship between fellow pupils' background and individual attainment, but as St. John points out, the problem of such surveys as the Coleman Report is that it is not possible to derive any clear causal relationships from their findings. It is possible that the survey has overestimated the effects of pupil characteristics on performance. The findings have been interpreted to suggest that it is racial integration which will lead to a better educational performance by black children; possibly social class integration is primarily responsible for this change. The study by Wilson, in an appendix to the US Commission on Civil Rights Report (1967), stressed the importance of social class rather than racial segregation in itself as a determinant of educational performance.

Despite the inconclusive nature of the evidence, programmes have focussed on racial rather than social class integration, though there is obviously considerable overlap between these characteristics. The criteria for selection has in most programmes been that of colour, and it is only in the very comprehensive schemes such as that planned for Berkeley that complete racial and social integration is the objective.

The Civil Rights Commission Report compared the effects of racial desegregation programmes with those of compensatory programmes in segre-

gated schools ; they came down strongly in favour of integration. Evidence was assembled to show that children who had been ' bussed ' to integrated schools progressed more rapidly ; whereas those in compensatory projects had not generally made progress. But the numbers in such ' bussing ' projects were small, and it is difficult to find out how children were selected to take part. The compensatory projects were generally on a large scale, involving several thousand children. The report concluded that compensation in itself would not be successful unless it was accompanied by a policy of desegregation : ' efforts to improve a child's self-esteem cannot be wholly productive in an environment which seems to deny his worth '. The findings of the Coleman Report on the importance of fellow pupils' characteristics, and the comparison between integration and compensatory programmes in the Civil Rights Commission's Report, added impetus to programmes of integration.

There are several kinds of integration programmes. Where segregation has not reached a particularly acute stage, it may be possible to make adjustments to school catchment areas to achieve a more balanced intake. Such changes are harder to make with the degree of racial concentration often found in the inner city. The speed with which residential areas changed once they had become predominantly black, also suggests that redrawing catchment areas will only be a short term solution. In this volatile situation, such integration of schools may in itself increase the speed with which whites leave for the suburbs.

A second possibility is to ' bus ' children from racially segregated inner city schools to white schools in the suburbs. But besides the technical problem of transporting large numbers of children daily over considerable distances, only the white schools are desegregated ; those in the inner city remain predominantly Negro. It is important to note the characteristics of receiving schools ; in many cases they are the outer suburban schools serving essentially middle-class whites. The buses may pass through the inner suburban areas where the more recent white immigrants and working class whites live. A particular kind of ' integration ' is achieved : and there may be some relevance here in the sociological finding that social groups who are very different in status may mix more easily than groups whose status positions are closer together. One-way ' bussing ' where black children are moved to suburban schools has been strongly opposed by more militant black leaders ; for it implies that the only educational salvation for Negro children is to be ' bussed ' out of the ghetto and sit alongside suburban white children.

' Reverse bussing ', where suburban children are also ' bussed ' in to central schools, partly meets this last objection by suggesting that school transfer can help both parties. Yet here again such transfers have largely been with middle-class suburban groups. A third more radical possibility is to go beyond a bilateral arrangement of ' bussing ' between two schools, and try to integrate a complete school system, ensuring that each school has a similar cross section of the community. For this purpose, the community can be ' zoned ' into districts that are socially distinct, and appropriate proportions of children from each ' zone ' attend or are ' bussed ' to each of the schools. A comprehensive arrangement of this type is only possible in a school system that is still relatively heterogeneous in social and ethnic composition. Without the most extensive transport system and the coope-

ration of suburban school authorities it is hardly a feasible way of integrating a large city with an inner city population numbered in hundreds of thousands.

A fourth possibility is to increase the size of the schools until they draw from a population extensive enough to be integrated. The size required will relate to the degree and extent of segregation in the district. The Great High School plan for Pittsburgh was able to put forward proposals for integrated schools of 5,000-6,000 students, by locating them at points within the city where they drew from integrated catchment areas. This was aided by placing the schools at major transport intersections. Where segregation is more extensive, the size of school may have to be so large that the conventional idea of a school is no longer relevant. The concept here is of an educational complex or 'educational park' with several thousand students.

Bussing Projects

Many bussing projects have only involved small numbers of children, and their general impact on school segregation for this reason must be very small. Of the ten such projects reviewed by St. John (1970), the numbers of children ranged from 75 to 22,300, with a median size of 266. The Open Enrolment programme in New York city was by far the largest, with 22,300 children : the next largest project involved 900 children.

Where school districts have been reluctant to institute bussing projects themselves, independent groups have been set up to run the programmes, drawing funds from sources such as foundations as well as the Federal Government. Thus the Metropolitan Council for Educational Opportunity (METCO) has been responsible for a bussing project in Roxbury, Boston. The organisation developed at a time of local pressure to improve the quality of education in Roxbury and to redress the racial imbalance. Contact was established with several suburban school districts prepared to accept children, and in the first year of operation (1966-7) 220 children were bussed from the city centre to seven suburban districts. In the following year, 425 students were bussed to sixteen districts, and in 1968-9 numbers were put at 917 in 28 districts (METCO, 1968). The full age range was represented in this group from kindergarten to high school. Drop-out from the programme appears to be slight, and it is claimed that there are plenty of applicants for places. Besides the bussing scheme, METCO has tried to improve relations between sending and receiving communities, through programmes that link families together, and by training teachers to make them more aware of the needs of the inner city child. METCO also emphasises the task of developing relevant curriculum for integrated education, for example the study of Negro history. Children who have been bussed showed greater punctuality and attendance, and their academic progress was stated to be better than average for the area.

Lack of any direct control group makes precise evaluation of the programme difficult. Using siblings of the children bussed as controls, Walberg (St. John, 1970) indicated that there were no significant differences between bussed and non-bussed children in grades 2-12 on such measures as reading and maths. This finding perhaps suggests that families who chose to have their children bussed to suburban schools were not typical of the area in which they lived : when this factor was controlled by comparing their progress with that of their siblings who have not been bussed, the

apparent effect of the bussing disappears. Walberg, however, (Walberg *et al,* 1970) notes that some of the groups who were bussed rated their new school classes more satisfying.

Integration Programmes in Rochester, N.Y.

Rochester in New York State has set up a number of schemes to reduce the racial imbalance between city-centre schools and those elsewhere. The first measure was to try an ' open enrolment ' programme, linking the ten schools having the highest Negro enrolments with eighteen schools whose non-white enrolment percentage fell below the city average. At a later date, this open enrolment was extended to include certain suburban school districts who agreed to take limited numbers of Negro pupils ; the first step was taken when 25 children transferred from city-centre schools to six schools in West Irondequoit in 1965. Since then further districts have joined the scheme. As part of a further programme for integrating inner city schools, a comparison is being made between two inner city schools, one of which is receiving a massive increase in resources, enabling a reduction in class size ; the other school has taken part in a reserve bussing project, where about 140 children from affluent outer city schools are bussed into the centre. In this school, too, there have been improvements in teaching resources and programmes. Altogether it was estimated that about 1,500 pupils were involved in these transfer programmes in 1968-9, from kindergarten to grade 12 ; this is out of a total pupil population of about 47,000 in the school district, and a further 9,000 pupils in other school districts involved in the projects.

Again precise evaluation of these projects, which have involved a number of changes in the pupils' experience, is difficult ; and there is the problem of disentangling the effect of integration by itself from that of changes and improvements in school facilities or programmes. A study of children bussed to one suburban area (Rock, *et al,* 1968) compared their progress with that of children joining first grade. The children were selected as average or above average in ability ; comparative groups were randomly composed—one group being bussed to the suburban district, the other remaining in the city centre. Pupils in the two groups were compared on tests in reading and arithmetic, as well as attendance records, promotion rates, social growth and work habits. Sociometric study of classroom patterns was also carried out with the first two groups. With the first group of bussed pupils, who had spent three years in the programme, seven out of fifteen comparison scores on achievement tests showed that the transferred group were significantly ahead of those who remained in the city centre. In the second group, who had followed the programme for two years, five out of eight comparison scores showed significant differences in achievement scores favouring the bussed group. From the sociometric data, it was concluded that the majority of bussed children were adjusting to the new situation and were well received by suburban classmates. In some cases suburban children selected non-whites as being ' best friends ' less frequently than expected, but this may have been due to their status as ' newcomers ' rather than as a result of their colour ; they were not rejected as ' possible friends '. The report concludes that the integration programme was effective in raising achievement among bussed pupils, and that the achievement of other pupils in the integrated classes was not affected. There

were, however, several reasons why the programme may have been effective. As St. John (1970) points out, the school system involved, West Irondequoit, was of high quality ; it is not possible to assess the effects of this factor on pupil achievement, but it may have been more important for achievement than integration by itself.

Berkeley, California

The numbers involved in bussing or reverse bussing projects are generally small in comparison to the number of children in city-centre schools. Following a small scale programme of this type in 1965 involving about 250 Negro children, Berkeley, California, developed a much more ambitious scheme to integrate a complete school district. The city was divided into four zones, each containing virtually a cross section of the population in social and ethnic terms. Within these zones, childern were to be bussed between schools so that a racial balance was achieved. With Negro enrolment in the school district at 41 per cent at elementary level, the programme ensured that all schools would have a Negro enrolment close to this figure—in fact between 32 per cent and 47 per cent (Dambacher and Rygh 1968). 3,500 children both black and white in the elementary schools had to be bussed every day—more than a third of total enrolments at this level. By staggering school opening hours, it was possible to reduce the costs of the operation to a tolerable level. The bussing scheme was seen as an interim stage, before the setting up of ' educational parks ', located in a central crescent of Berkeley. In a school system the size of that of Berkeley, integration of this type is possible. The Negro population did not yet constitute a majority, and the segregated areas and distances involved were small enough to make rezoning and bussing a practical policy. Whether such extensive schemes can work without serious ' side effects ' has yet to be seen ; they may well accelerate the general population imbalence, as whites move out to suburban school systems or send their children to private schools (Hurstfield, 1969).

A number of school districts are currently planning or constructing educational complexes and ' educational parks ', as a way of integrating large parts of the schools system. The aim is to locate these parks at strategic points within and around the city to reduce travelling. The Commission on Civil Rights Report (1967) reviews several of these proposals, and outlines the advantages and drawbacks of such large scale projects. There are advantages in scale, not least in the range of facilities that can be made available ; but there are costs in the amount of travelling for many pupils, and the lack of close contact with any local neighbourhood. There may also be problems of control when so many pupils are assembled on a single campus. As racial concentration within large cities increases, plans for such parks require the cooperation of suburban school districts if they are to be integrated. There is a risk, too, that if the basic causes of such segregation, particularly housing discrimination, are not alleviated, ' educational parks ' will themselves be bypassed by the rapid movement of population.

Programmes of integration whether on ethnic or on social class lines strike at the idea of the school as a local neighborhood institution. A new conception of ' community ' is put forward : one that covers a broad cross section of the population, rather than a geographic unit. As racial con-

centration increases, the number of ways of integrating schools is reduced ; many bussing projects have only been able to move a token number of black pupils from ghetto schools, and often these have been moved to the outer suburbs rather than to the predominantly white schools closer to the centre. The claims that such bussing projects are the most effective way of promoting pupil achievement have caused the black population in many areas to become antagonistic, particularly where only a small number of children are actually bussed. Reverse bussing partially answers this objection, but here again the numbers are small, and it is often secure middle-class whites who are involved. More radical programmes to integrate complete school districts are likely to meet considerable opposition, because of the apparent disruption to schooling caused by rezoning and bussing and the additional costs of transportation. As yet, there is no firm evidence of how such schemes as that planned for Berkeley will work out. The creation of ' educational parks ' is not as yet far enough advanced to see how effective a solution they may prove to be.

Supporters of integration programmes have generally argued that integration will promote achievement among the minority groups who are integrated. Though a number of integration projects appear to have demonstrated that bussed children do better than those not bussed, there are problems about the similarity of the groups compared. There is likely to be some form of self-selection among the bussed group, and possibly selective drop-out from both bussed and control groups. Also there is the problem of controlling for the effects of improved school quality experienced by the bussed group. Where ingenious methods of controlling for these factors have been employed, as in the METCO evaluation, the effects of integration are not marked. As St. John (1970) concludes, this lack of clear-cut evidence is largely because there have been ' no adequate real-life tests—no large-scale, long run instances of top-quality schooling in segregated minority-group schools '. Until programmes of integration are compared with this type of compensatory approach, we will not really be able to measure the effects of integration as a factor independent of the quality of schooling experienced.

D. New Institutions

The discussion of school reform in the previous three sections has been mainly concerned with reform to existing institutions, whether by changing their relationship to the community they serve, or by redefining the nature of the school catchment area to include a more socially representative group. An alternative strategy is to set up entirely new institutions to parallel or replace the existing system. Such a strategy may be more commonly adopted by independent groups who are not involved in the control of existing schools, but there are examples where official school boards have set up new institutions as a way of promoting a faster rate of innovation in public schools.

Several of the Head Start groups have demonstrated that successful preschool centres could be set up and run by independent groups. One powerful element in the growth of preschool programmes has been that it is easier to introduce new ideas where there is little or no previous provision. Under the Head Start programme, community groups were able

to open preschool centres that included a number of innovations—parental involvement, parents as aides and teachers—ideas which might have been received with hostility in the formal school system. The creation of new institutions at preschool meant that innovations could be introduced, while avoiding a clash with for example teacher unions.

Follow-up studies of children who had been through Head Start, their experience and the experience of their parents when they joined full-time schooling, increased the pressure for similar innovations at school level. The problem here is clearly more difficult to solve, as existing teacher attitudes and school organisation have to be changed. The programme to maintain the momentum achieved by Head Start into school grades, the 'Follow Through' project, adopted an entirely different strategy of development. The plan was to launch a series of pilot programmes before extending the project on a national scale—a recognition that fundamental changes in existing provision have to be made at a slower rate than was possible for Head Start, and an acceptance that a curriculum must be firmly researched at a pilot stage. 'Follow Through' programmes were designed for existing schools and personnel, rather than for new institutions.

'Free Schools'

The rate of development was clearly too slow for a number of groups whose thinking was shaped by the more radical 'community' approach associated with certain Head Start groups, particularly the CDGM in Mississippi. With help from charitable trusts, several community movements have opened privately-run schools in city ghetto areas, and in Boston, for example, there have been plans to extend these isolated examples into an alternative system to the public schools (Committee for Community Education Development, 1968).

A strong motive behind several of these community schools is the desire to demonstrate that black people can direct, staff and run a school as successfully as suburban whites. In the Highland Park Free School in Boston, serving the Roxbury community with a population which is about 65 per cent black, it was decided that the principal should be a Negro (Cooke *et al,* n.d.). These 'free' schools also challenge the assumption implicit in many bussing programmes that education in ghetto areas could not be improved, that the only solution was to bus black children to good majority-white suburban schools.

The 'community controlled' organisation of these schools implies a number of changes in the teachers' role, both in relation to pupils and to parents. In one school, some of the classroom aides were both parents of children in the school and also members of the community council which ran the school. Teacher 'accountability' to parents is maximised in a situation of this kind. In normal schools, the parent has little redress against bad or inadequate teachers, and one strong demand in the movement for 'community control' has been for 'teacher accountability' to parents. Though the position in certain 'free schools' may increase the power of parents over teachers, the result may be a loss in teacher security. A teacher in a 'free school' in East Harlem compared his position to that of a lawyer employed for a particular task and retained or dismissed in relation to his success or failure to accomplish these objectives.

Critics of parental or community control of schools have argued that a change to this form of organisation would be associated with a return to more formal and authoritarian methods of education—the argument possibly being based on the allegedly typical adult-child relationship in ghetto communities. Two points can be made against this argument. The first relates back to a point made in the discussion about parental involvement ; it is only a minority of parents or community members—and probably the most articulate group—who are directly involved in the movement for school control. And secondly, the question of school control is seen to be closely bound up with the struggle for political recognition. Political objectives such as greater 'participation' may be reflected in patterns of school organisation.

In practice many 'free schools', as their title suggests, are run on very unstructured lines. Fantini (New York Conference), in answer to the charge that parents may introduce reactionary teaching methods, suggested that the change to community control occurred because parents had begun to realise how inadequately ghetto schools were functioning. The change in control or the creation of parallel institutions was associated with a change in classroom organisation, because the previous more formal arrangements had clearly failed to achieve adequate results.

The real danger appears to be almost the reverse, that the 'free schools' will too easily adopt a theory of learning and development that assumes children will spontaneously organise themselves into profitable learning situations without adult intervention and direction. The development of a relatively unstructured class situation where children are free to plan and follow their own activities has been shown to be an important change in motivating children to work well, for example in a number of British primary schools, and in schools taking part in the Education Development Center's programme. But such development probably requires more teacher time and attention than more conventional methods. And there are problems, too, in changing a school organisation rapidly from a formal structured approach to more informal methods.

Without extensive changes in the methods of financing the public school system, it seems likely that such schools will remain relatively isolated examples able to take in a few children while the public system still caters for the majority. It can be argued that to create and support such schools turns attention away from the main problem of reforming the public school system ; that to concentrate on preschool and independent institutions is to avoid the major difficulty of institutional reform. Such an approach may even increase the difficulties of public school reform as resentment and opposition from established teachers and school authorities build up against new institutions. On the other hand, such new institutions may act as pace-makers for the school system, more willing to experiment with new ideas and methods of organisation and demonstrating their feasibility to more cautious schools.

'New institutions' have not been confined to areas where there has been decentralisation, or to setting up of private schools for the disadvantaged. A number of institutions opened by public school systems come under this heading. The objective has been to set up demonstration schools or centres to act as pace-makers for other schools rather than replace or parallel existing institutions. Several of these 'new institutions' draw chil-

dren from much wider areas than traditional school catchments, and their intake often includes a wider cross section of pupils. Their relationship to the 'community' is often closer to that of an integration programme than to programmes of 'community control'.

The Parkway Project

This is very much the thinking behind the 'Parkway Project' in Philadelphia (Philadelphia School District n.d.): here the school's 'community' becomes the central area of the city, including its non-residential buildings, office blocks, museums, libraries and so on. The traditional concept of 'community' is rejected as inappropriate for a large urban centre with a highly mobile population. The project which began in 1969 is a scheme to provide full time educational facilities, initially for high school age children, using 'community' resources. The 'community' itself becomes the 'school'—and there is no formally designated school building. 'Community' in this sense is the cultural, commercial and industrial institutions along the central Parkway of the city—museums, libraries and firms who have agreed to provide courses, of a vocational or academic type, as required by students. The director of the project argues that the educational potential of such institutions is underused, or devoted to internal staff training. Students themselves cooperate with tutors in formulating their own educational programmes from the courses on offer. Basic skills in subjects such as mathematics and language are acquired in supplementary tutorial groups specifically organised for the purpose. As the Parkway Project does not serve a particular catchment area within the city, a policy of open enrolment has been adopted and places are allocated by lot from students who apply.

One way of looking at developments of this type, both those technically within the public system and those that are set up as parallel institutions, is to see them as 'model' or 'demonstration' schools from which other schools can learn and thereby introduce change into their own patterns of organisation. A 'model' school would possibly overemphasize certain new developments to demonstrate their feasibility and relevance for normal schools. To create 'model' schools or even 'model' districts is a strategy for promoting change in a number of other geographically related institutions. Getzels (1967) argues that 'model' schools can also serve as a half-way stage where teachers can be allowed to experiment with new ideas in an atmosphere protected from day to day school pressures. Similarly they could be a transition point for student teachers to be induced into the school system, though there is a risk of creating a school that is so well equipped and staffed that experiences gained in its setting may be seen as irrelevant for normal school work. Getzels underlines the importance of training teachers in groups, so that they can reinforce one another as they seek to introduce change into normal schools.

The Pennsylvania Advancement School

The Pennsylvania Advancement School, also in Philadelphia, is an example of the 'model' school approach: the central purpose of this institution is to develop and demonstrate to practising teachers a range of techniques that may improve learning motivation among children. The

school operates a short programme of a term or a summer session for children referred from other schools, particularly where the child is felt to be under-achieving. The organisation and design of the centre is aimed to minimise a school-like atmosphere ; though there are spaces that resemble classrooms, the building is largely open plan. Many of the areas are carpeted. Activities normally classed as recreational, for example billiards or pin ball machines, are mixed in with more academic work, to stimulate the students' interest. Once the student has graduated from the centre, follow-up work is planned.

If the centre is successful with under-achieving and difficult students it may encourage more traditional schools to adopt the techniques of the Advancement School. To aid this process teacher workshops have been organised in the summer for teachers from other schools (Pennsylvania Advancement School, 1968) : but informal follow-up of teachers who participated on these courses indicated the need for workshops within ordinary schools to back up the work of the Advancement centre. The organisation of a more formal school is likely to be strongly resistant to the ' freewheeling ' developments implied by the Advancement School's approach, particularly where only one or two teachers are attempting to make these changes on their own. The school, has managed to recruit staff from an earlier experiment of this kind in North Carolina and to attract new staff who are sympathetic to its objectives. Again within other schools there is the problem of coexistence between staff converted to the new approach and staff who are not sympathetic to such methods.

The ' World of Inquiry ' School

A similar development to the Advancement school is the ' World of Inquiry ' school in Rochester, New York. This deals with a wider age span, covering the ages from nursery to the end of the elementary grades, whereas the Advancement school deals with seventh and eighth grade children. The World of Inquiry School aims to have a student body that is representative of the whole of Rochester. The organisation of the school in many ways follows some of the developments found in progressive British primary schools ; children work in relatively small multi-age groups, and the curriculum is based on ' interest areas ' rather than formal subject divisions. The central aim is to provide an individual programme for each child, based on continuous diagnosis of the level he has attained and his interests. The basic method is that of discovery. The staff, like the students, are of ethnically diverse origin, and with 21 teachers to a pupil enrolment of 130, class groups are small ; there are a number of specialist teachers, particularly in creative subject areas.

Parental reaction to the school has been extremely favourable. Objective measurement on a range of ability and achievement tests administered at the beginning and end of the school year demonstrated that significant gains had been achieved on all the tests. The average scores for the school were in general well above that for the city and for New York State, and in most cases World of Inquiry pupils were higher on ' school readiness ' tests than pupils in a suburban school district (Center for Cooperative Action in Urban Education n.d.). Though pupils for the school are drawn from a cross section of the Rochester community, parents initially have to make the application. This procedure may mean that though a representative

selection is made on objective criteria, the group selected is distinguished by having parents who are interested enough in education to make an application. An important function of the 'World of Inquiry' school is to act as pace-maker for educational development in the area.

The 'Store-Front' School

Another project in Rochester takes the method of 'demonstration' one stage further; instead of aiming at an audience of teachers and educators, the objective is to introduce new ideas in education directly to the general public. For this purpose, a 'model' classroom has been set up in a large department store, with closed circuit television and a viewing room where shoppers can watch lessons in progress. The classroom, equipped with a range of educational machinery including computer terminals, is used by classes from the Rochester school system on a rota. Manufacturers of educational equipment have donated many of these resources as a way of providing a shop window for education.

A 'Model District'

Some of the work of the Educational Development Center (EDC) in the Follow Through programme has been described, and in particular the development of the 'Leicestershire' model for elementary education. This development, which places the main role of innovation on the classroom teacher, requires substantial support services for teachers—advisory staff, workshop and in-service training facilities. To demonstrate this principle in action, EDC have been involved since 1967 in a 'model school district' in the Cardozo area of Washington DC. Beginning with a team of 15 teachers who attended summer programmes, the project developed a series of 'workshops' for serving teachers. The necessary supplies of raw material for classroom use, were made available so that teachers could immediately implement ideas that had emerged in the workshop sessions. Summer institutes were also held. Members of the innovation team gave support teachers in class, providing advice and new materials. In the first year of operation, 90 per cent of teachers in the district requested assistance under the scheme (Model School Division, Washington DC, 1968). The project also worked on the development of curriculum material relevant for the immediate area, and the team have been involved in promoting better relations between the schools, parents and the community.

The problem of setting up new institutions in education is that they will be seen merely as accretions to the existing system; that by making only an indirect attack on the tradition and formality of current school practice, their development will be viewed as irrelevant to the central issues of day to day teaching. There may be some 'spin off' from these experimental schools and centres; but the conventional school is extraordinarily resistant to change, and a handful of teachers converted to new methods by in-service courses may not be powerful enough to change the direction of a complete school. It may be necessary to take out complete school staffs and retrain them together as a team, so that back in school, they can support one another in introducing change.

Another successful strategy may be of the kind developed in the Cardozo project by EDC; here a small team of highly motivated teachers are

given the brief of introducing change into a number of schools. By concentrating on a small number of schools, it is possible to involve groups of teachers more closely in curriculum development and workshop sessions, and to provide within-school follow-up. The approach to education favoured by EDC is essentially an 'organic' one—a method that is well suited to giving individual teachers initiative in developing their own ideas, rather than closely prescribing the curriculum that a teacher has to follow. Such an approach to education fits in well with the 'community development' method followed by the innovation team in the Cardozo district.

In this section we have reviewed programmes that set out to develop 'new institutions' as a means of educational innovation. The strategy of opening independent 'free schools' was one response to the slow rate of change in the public school system, but unless there are major changes in educational policy it seems unlikely that such schools will be able to cater for many children in ghetto areas. Another approach, adopted by some school systems themselves, is to set up 'model schools' or 'model districts' to demonstrate new techniques and methods to teachers in other schools. Such centres are usually very successful, as they often work with specially selected staff and adequate resources. But the problem of transferring innovation from these centres to the schools themselves remains.

Chapter V

EVALUATION AND RESEARCH

One of the characteristic features of compensatory education has been the development of evaluation and research programmes to assess the effects of educational innovation. In a number of cases, so called 'evaluation clauses' have been written into bills providing funds for compensatory projects. Some form of 'evaluation' had to be conducted as a condition of funding, though there was a tendency in several large-scale programmes, such as Title I, to play down the idea of rigorous evaluation by every area. Increased interest in the problems of the disadvantaged, meant that more resources were made available for basic research on this subject; in fact the release of funds for basic research was sometimes used as a way of encouraging researchers to participate in evaluation studies; for evaluative research carries a lower level of prestige.

In this chapter we look first at some of the problems and methods of evaluative research, then at some the new institutions that have grown up to handle such research and disseminate its findings, and finally at some aspects of basic research on the disadvantaged.

A. Evaluative Research

The problems of conducting evaluation studies of educational programmes are partly technical, and partly the result of the 'real world' context in which such programmes operate. The type of evaluation that in fact takes place, is often a compromise between what is technically possible, and what is acceptable to those who direct or participate in the programmes.

i) *Problems of Research Design*

Two main factors determine the nature of evaluation. In the first place, the degree of control that research has over the design and development of the action programme considerably influences the evaluation strategy that is chosen. If this control is low, certain forms of evaluation are ruled out. A second factor is the amount of knowledge about the problem, and in particular how far special programmes embodying this knowledge have been developed. Projects which set out to develop programmes will require different methods of evaluation from those where the programme has been developed but not as yet tested. Within this framework, four broad types of relationship between action and research in current American programmes can be distinguished.

At one end of the scale, where research plays a minor role in shaping the way that action develops, evaluation becomes essentially a close and

accurate description of the deprivation and needs of the target population and of the nature of the action, and possibly also a critical description of the impact or outcome of the intervention. The researcher acts as a 'communicator' for the action programme, besides evaluating it. His audience may be as varied as the general public, professional colleagues, private funding foundations, and public authorities. His function as communicator will be to provide information about the action and its development; for his audience may be as concerned with the feasibility of introducing changes in educational provision as they are with the effects of such changes. Such descriptive evaluation may range from straight-forward accounts of educational programmes to more detailed analysis of the roles, role relationships and institutional settings of educational innovation. An example of this last approach can be found in Ash (1969), where from a "participant observer's" point of view relationships between pupils, teachers, and student assistants on a summer project for disadvantaged high school children are analysed.

A second type of evaluation research is more closely concerned with the development of the action. Action programmes are designed to react to needs as they are uncovered. Action is not pre-ordained, but is modified in the light of experience. The role of research is to provide 'feed-back' about the short term effects and to suggest modifications where the programme is failing to meet its objectives. In theory, 'feed-back' information could include some indication of how programmes were being received —'consumer preference'—as well as changes like improved test scores. But in general 'feed-back' evaluation has dealt with the second type of measure, though the views of parents, teachers and other adults involved in the programme have sometimes been sought to justify particular developments.

The Tutorial Community Project used a version of feed-back evaluation to develop the components of the programme. Particular objectives were selected, and a series of approaches—class teaching, small group teaching, peer teaching and so on—were tried out. Each component of the programme was tried out and modified before the complete approach was put together as a unit. Dr. Newmark (New York Conference) argued that this type of 'evaluation-revision' had to precede any attempt to compare the complete approach with another treatment or a control group. Particularly with the disadvantaged, there are too many unknowns to be certain that a particular programme would work out as intended in the school situation. In many cases formal evaluations had been carried out only to find that the programme itself had never been adequately implemented. 'Evaluation-revision' was a way of field testing and developing a programme.

This more cautious approach seems to be well suited to the uncertainties of developing programmes for the disadvantaged. But in practice projects have been expected in a short period of time to provide information about the overall effectiveness of action programmes. Probably the most common form of evaluation has been to assess the 'impact' of a programme —sometimes called 'monitor evaluation'. This type of evaluation is found mainly in projects where the design is fixed at the outset, and from which funding agencies and decision-makers require a systematic and objective indication of success or failure. Often the split between action and research is formalised by appointing separate teams to work independently. Some-

times the research team is set up after the action has been planned and begun, so that there is little chance for the research design to influence the way the action develops. Several research workers welcome this split between action and research as a means of ensuring an impartial assessment ; it is feared that involvement of the research team in the initial stages of the project may make them too committed to the action. Dr. Fox (New York Conference), who directed the More Effective School evaluation, argued for this approach. The MES evaluation was done by an independent unit which was not involved in the design or implementation of the action. Yet this approach carries considerable costs for the research design, which has to fit in with an already finalised piece of action. There is also a danger that the research team will select objectives which are unacceptable to the action team. This problem has developed with several Head Start evaluations. Research has often assessed the programme's effectiveness in raising cognitive ability, while many Head Start teachers have given more emphasis to social and emotional development. Setting up evaluation studies after the programme has started also raises technical problems in finding matched control groups ; for there may be no reliable measures of the position at the time when the action began. Critics of the evaluation may reject the assumption that the control and experimental groups were initially equal.

It is not essential for ' monitor evaluation ' to start after the action ; the split between the action and the research design can weaken the technical reliability of the findings. Yet the benefit of such a ' split ' is that the research team may seem reassuringly ' neutral ' towards the action, and in large scale or national programmes ' monitor evaluation ' may be the only feasible method ; for the constraints on action imposed by a precise research design might entail intolerable political costs.

A fourth role for research is to participate in the design of the action. This type is most likely to occur where action programmes are experimental in intention and design. It implies that the problems of the ' target group ' are well understood and that remedial measures are relatively well developed. In such a context the researcher has a role in establishing the form and content of the action programme because it must be structured and implemented in such a way that the conditions of experimental design are met. Hopefully, this will produce irrefutable evidence about the effects of particular programmes. The degree of control required over the way the action develops, and the restrictions on which groups are to take part in the programme and which are to form control groups, mean that this experimental method is likely to be confined to small scale projects.

Most of the small preschool projects adopted this approach. Research participation in the design of the action was an essential preliminary feature. Groups who were to participate were selected according to research criteria, and in some cases randomly allocated to experimental, comparison, or control treatments ; in other cases, some form of matching procedure was used. These methods ensure that in research terms there is the best chance of relating observed change to particular treatments. Many of the preschool programmes acted as ' demonstration ' programmes. They provided well-based results to satisfy a research audience, and at the same time demonstrated their programmes in action to an audience of teachers and educators.

There are a number of drawbacks to this ' experimental ' approach in action. Many of these programmes operate at the preschool level where they are free of the constraints of formal school requirements ; the level of

control over the programme in operation by the research team would make it very difficult to carry out in a normal school. But this abnormal situation can influence the results and make them a poor basis for generalisation. Light and Smith (1970) point out that forming a small preschool group by random selection from a large area will create a group that is hard to replicate under normal conditions ; for the group will be spread throughout the area in a way that is not found in the classes of normal neighbourhood schools. For this reason, community and peer group pressures may act differently in the experimental group than they would under normal conditions.

There is the problem too of maintaining the intensity of a programme which starts in an experimental centre with specially selected staff and research workers, when the programme is expanded and introduced into ordinary schools. Several of the experimental preschool projects only had children at the group in the morning ; the afternoon was devoted to planning and discussion among teachers—a condition unlikely to be replicated in normal schools. A further criticism is that the experimental method risks taking for granted aspects of the programme's effects that are problematical. Being principally concerned with outcomes that emerge at the end of the project, it may neglect to make clear why particular results occurred. Several speakers at the New York Conference stressed that at this stage knowledge about the ' process ' was as important as knowledge about the ultimate success or failure of the action.

Though the four types of evaluation strategy represent different responses to the relationship between action and research, an evaluation may include more than one type. For example, systematic description can be combined with experimental design to give additional information about the development of the programme. But certain combinations may lead to tension and conflict either between research and action or between the various types of research being undertaken. Programmes that are in a state of almost continuous modification as a result of ' feed-back ' research are by intention and outlook inconsistent with an experimental design which requires a consistent programme. Nor is the ' feed-back ' approach really consistent with a ' monitor evaluation ' role, particularly where there is little contact between the action and the research team.

There are likely to be tensions for the research worker whatever evaluation strategy is adopted. There is a strong chance of conflict between the researcher's desire to be objective and scientific—to protect his research design—and his inclination to be practically useful. In the face of these conflicts, several writers have recommended an uncompromising attitude by the researcher : ' once the impact-model is formulated, the researcher must continue to remain within the environment, like a snarling watch-dog, ready to oppose alterations in program and procedures that would render his evaluation efforts useless ' (Freeman and Sherwood, 1965). Others, for example Marris and Rein (1967), have used these problems and conflicts between action and research to suggest that formal research procedures are out of place in community development work. Yet, though there are difficulties, a number of successful evaluation studies have been carried out, and these have produced considerable information about the effects of educational programmes. Even where evaluation studies have been conducted in difficult conditions, where it is hard to achieve proper comparisons, control groups, or reliable measures of the conditions before the programme started, results

can often indicate whether or not dramatic changes have occurred. Here some data is clearly better than none, as long as the conditions under which it is gathered are fully recognised.

ii) *The Problems of Social Context*

In addition to the problems of research design and of the relationship between action and resarch, there are further difficulties in the social and political context in which programmes for the disadvantaged have to operate. These become more acute the further the programmes are from the tightly controlled university—or research institute—based experimental projects which are relatively insulated from social and political pressures. A major problem at the 'real world' level is that of 'paper programmes', which look fine in intention but in practice have little to offer as a serious solution. There are two main reasons for this—the lack of resources, or the dilution of resources between the design and the implementation stages. Resources include knowledge, and human as well as financial resources.

Straight-forward lack of resources is easy to illustrate: it is the gap between the magnitude of the social problem and the volume of resources provided. The overall impact of the action will probably be limited. The programme is a 'gesture', demonstrating good intentions but with inadequate resources to achieve many of the intentions and expectations that have been aroused. Given the chronic nature of the conditions of the black community in the US, it is unrealistic to expect a programme that for example involves occasional contact between action workers and members of the community to make much impact for basic social change. Yet lack of financial resources is only part of the problem; equally important is the lack of human resources, of knowledge about the nature and effects of deprivation, and the most effective forms of remedial action.

By the 'dilution' that occurs as a programme develops, is meant the gap between the resources and intellectual sophistication required by the central design and those actually available at ground level. The final version of the programme is unlikely to match the original intentions. The Higher Horizons Project in New York is a good example of a programme where financial resources are diluted as the scheme expands. From a successful pilot phase, the Demonstration Guidance Project, the programme was expanded to cover a much larger number of schools; although the budget was increased, the concentration of funds was inevitably reduced. The Head Start programme provides another example; the aim of the centre to have a strong cognitive focus in the preschool work was frustrated by the fact that existing staff were trained in the traditional type of preschool work. Programmes of this type increase the problems of evaluation research, making it essential as a first stage to find out whether the programme has in fact been implemented, and implemented in accordance with the original design.

A further problem is caused by the objectives set by programmes. These goals seem to have three general characteristics, which to the action worker may be strengths but for the research worker pose a number of difficulties. Objectives tend to be multiple, to be subject to frequent change, and often to be hard to translate into explicit operational terms. Whether or not these are weaknesses in the action design, they all tend to make acceptable evaluation difficult, though not impossible.

Few action programmes have single objectives. Part of the reason for

this may be that the deprivation experienced by the target population is multiple. Disadvantaged children will have experienced physical and emotional deprivation, and be handicapped in cognitive as well as motivational skills. Remedial programmes tend to concern themselves which the ' whole ' child, rather than parts of his development. Similarly, working with an individual child may mean involvement in other aspects of his life besides education—his family, peer group, and neighbourhood. Such broad approaches are defensible when the diagnosis indicates that a particular problem has many causes. But multiple objectives are sometimes the result of a poor analysis of the problem. An example of this could be the move to introduce the ' culturally deprived ' to ' high culture ' as part of the Higher Horizons programme. Or they can be the result of competing interests, whether rival theories or pressure groups, producing a natural reluctance to place all one's resources on a single solution. Whatever the reasons for this approach, the evaluator may be forced to select particular aspects to evaluate and possibly to construct his own operational definitions of what the programme is trying to achieve.

The danger is that the evaluator will select the most easily available and reliable tests to safeguard the standards of his evaluation. In education, such tests are generally measures of intellectual ability and achievement. Though programmes may be concerned with other skill areas—motivation, social and emotional development— as well as performance, these tests are generally less reliable. It can be argued that in the final analysis any educational programme to be successful must bring about some improvement in pupil ability or achievement. Yet it is possible that premature assessment on tests measuring only these skills has undermined the development of many promising programmes which have not as yet begun to make improvement in this area.

Where the overall objective of a programme is some broad social goal, such as the reduction of juvenile delinquency or an increase in the earning power of the disadvantaged, it is hardly surprising that the evaluator is faced with considerable difficulty in interpreting these objectives into educational terms. The central problem is the relationship between educational output and occupational reward, or between improved education and a reduction in social deviance ; yet these relationships are far from clear. Given broad goals, it is not surprising too that the action should swing from one aspect of education to another ; for there is not adequate knowledge of the best educational approach to reach such non-educational objectives.

Though small scale research projects avoid many of the difficulties of operating in a wider social and political context, they are still subject to a number of pressures. Where experimental research methods are adopted, ' control ' or comparison groups are needed. This means ideally that certain children have to be excluded from preschool groups, so that their progress can be compared with those in preschool. Few researchers choose to act in such a manner, and they merely avoid enrolling their ' control ' children in preschool programmes. But some of these ' control ' children may find their way into other preschool groups, so that their status as controls is undermined. A preferable method, strongly recommended by Professor Zigler (New York Conference), is to compare the effects of two different programmes, rather than a single programme with the effects of staying at home—this will increase the chances of controlling the children's experience. There is also the risk that the two parts of the programme will in

a sense enter into competition with each other. If each group has equal resources and enthusiasm for its own programme, competition will not necessarily reduce the validity of the experiment ; but it might make the findings an unreliable basis for more widespread action where such enthusiasm and competition could not be guaranteed. Finally the impact of the action can be diffused outside the project into other sections of the community and bring about changes in the behaviour of people not directly involved. A good example is the diffusion effect noted by Gray and Klaus (1966) ; programme effects were noticed in younger siblings of children who had attended the preschool and among friends and relatives in the local control group. This complicates attempts at comparison within the local community.

One solution to these difficulties may be to distinguish various styles of action and suggest that the role of research may vary according to the style of action. The least sophisticated style of action—as far as research demands are concerned—is the ' mobilisation ' style, where the role of the action is to ' mobilise ' resources to meet the needs of the target population. This assumes that we know what the needs are and are aware of ways to deal with them ; what is lacking is sufficient resources, both human and financial, to deal effectively with the problems at either a national or a local level. The task of the action programme is to generate resources, or sufficient interest and concern over the issue for resources to be mobilised by others. The population to be helped is specific, but the audience for the action is diverse—the local community, teachers, civic leaders, businessmen and politicians. The objective is to make them concerned and willing to generate resources to expand the action programme. The role of research will be to demonstrate that these resources can be utilised and that the selected community will take advantage of them. This will include surveys to show the likely response to new resources—for example, that parents will welcome more preschool provision.

Overlapping this ' mobilisation ' style is the ' dissemination ' or ' redistribution ' style. The problem is not so much to ' mobilise ' new resources as to ' redistribute ' them to those most in need. It is important for new techniques and ideas to be disseminated to these groups. This style assumes that we know what has to be done and that resources are available. What is lacking is a means of directing the resources to the right sectors of the population. One aspect of this style is the ' supporting ' or ' consultant ' role that project workers can play—supporting in the sense that teachers and social workers may require ' back-up ' to deal with pressing problems, and consultant in the sense of someone to whom the community can turn for specific advice and assistance. The idea of the ' change agent ' in the work of Fantini and Weinstein (1968 *b*) in Syracuse is close to this conception. The function of the ' change agent ' was to promote new ideas and new groupings within disadvantaged schools, involving the teachers closely in the organisation of new schemes with the help of small scale resources. As an extension of this approach, Professor S. M. Miller (New York Conference) put forward the idea of the ' advocate planner ' whose role was to ensure that the community he represented received its share of new resources—a recognition that conventional political processes for achieving this objective are unlikely to be effective in disadvantaged communities faced with a complex administrative and legal system. Research here can do little more than describe the stages of the action.

A third type is ' demonstration ' action, concerned with showing the effectiveness of a particular innovation. This can be ' political ' in the sense that it tries to show that something currently unacceptable can be tried without damaging results. This can vary from innovations rejected by teacher unions—for example the use of untrained adults in the classroom, to ideas that contradict a theoretical position—for example the use of structured teaching sequences in nursery classes which are traditionally unstructured. A different type of ' demonstration ' action is more ' empirical ' in form, by demonstrating ways in which an innovation can be set up or evaluating its effectiveness under ' real ' conditions. In each of these cases the methods of presentation may differ, as the aims of the demonstration are different, but each one has to ' display ' an activity so that the ' onlookers ' become convinced of its effectiveness. Research can now play a relatively independent role, confirming or denying the general impression given by the programme ; though where research findings conflict with other impressions of the project, their reception is likely to be hostile. The controversy over the evaluation of the More Effective School programme is a good example, where the negative research findings conflicted with the strong commitment among the teaching profession to the changes made in the project schools.

A technically more sophisticated version of the ' demonstration ' project is ' experimental ' action, in which the objective is to establish action under controlled conditions and to examine styles of intervention. Of all the action models, this corresponds most closely to traditional scientific research. Although the intention is to ' help ' a particular group, this goal is apparently subordinated to the need for precise collection of data ; for the action workers are already so convinced of the programme's effectiveness that they are prepared to subordinate the interests of the group selected to the demands of an experimental design. Though a particular group of children will be enrolled in the project, they will be so selected that they represent a larger population. Despite these impersonal procedures, it is natural that commitment to individual children should develop as the project proceeds, and likely that the original specification of the programme will be altered in some ways to accommodate the heterogeneity of the group. Even if children are selected according to a number of socio-economic criteria, a group will still be remarkably heterogeneous, which means that ideally each individual child in the group should have an individual programme. The difficulty posed by this for the research worker is in principle the same as the problem created by changes in the total programme, if he is trying to relate particular programmes of action to observed outcomes. There is a dilemma between the need for effective action to be in a process of continuous change as the project progresses and the need of evaluation for a stable programme of action. At times this dilemma can become a moral issue : how long should a programme continue with action that participants suspect is either ineffective or positively harmful ? The problem is not peculiar to intervention research in education ; it is equally relevant to medical and other research where the subjects are human beings.

The difficulties of evaluation research discussed so far are principally those concerned with technical issues and the social context. Less attention has been given to the status and function of evaluation results and their role in any decision-making process. Where research and action are closely combined in the experimental type of project, results are decisive for the

future of the programme. It is very unlikely that an experiment with negative findings would be expanded, except for research purposes. Where research plays a 'feed-back' function, again there is little problem about the utility of the findings. But where programmes operate in a more normal educational environment, with no strong commitment to continuous change, the function of research findings is more complex. The decision to expand or wind up a programme would be based only partly on research findings : if participants' impressions were strongly in favour, the negative conclusions of research might be outweighed.

Formal research is only one way of evaluating an educational programme : the conventional process remains strong, whereby ongoing programmes of action generate support for their continuation among teachers, administrators, parents, and possibly children. And the more widespread the action, the more powerful such pressures can become, outweighing the evidence of research. Several researchers (New York Conference) suggested that this lack of regard for research findings was the main reason for the relative unpopularity of evaluative research in academic circles. Research findings carried no weight in decision-making. Others queried whether evaluation studies conducted on national programmes were adequate to play the major role in deciding whether a programme should be wound up. Even an evaluation as extensive as the Westinghouse Report on Head Start inevitably has to concentrate on certain aspects of the programme ; and there can always be doubts whether its measuring techniques have been able to tap changes in performance, or indeed whether the aspects selected are the most important objectives of the programme.

The evaluation of large scale programmes is hardly developed enough as yet to play a major role in decision-making. It is debatable whether this could ever be the case, in view of the social and political constraints that operate in the evaluation of large scale programmes. Perhaps a better course of action is to concentrate on evaluating the effectiveness of programmes while they are still at the pilot stage, and at the national level to focus more on the question of whether the programme has been implemented according to the plan developed at the pilot stage. The strategy adopted for the 'Follow Through' project is much closer to this model than is the development of Head Start. If such action programmes are to be truly experimental, in the sense that they can be freely changed, modified, or abandoned, then their design and development must allow for this possibility. But it is questionable whether a national programme covering hundreds of thousands of children can meet this specification. And if this is not possible, because of social and political constraints, then evaluation has a very different role here from its function in pilot schemes.

B. New research institutions

Some of the new resources that were available for compensatory education were used to develop research facilities, and a number of new institutions were set up to act as educational development and evaluation centres. Improved methods of disseminating information were also required in view of the mushrooming of projects throughout the country.

Under Title IV of the Elementary and Secondary Education Act of 1965, funds were provided to set up 'Regional Education Laboratories',

the aim being to establish a network of centres that would tie research and development, particularly research on the disadvantaged, into classroom practice. Twenty of these laboratories were set up and began to develop programmes in their particular areas of interest. Some centres were quite small, employing less than 20 professionals ; others were much larger—for example the Center for Urban Education in New York, with a professional staff of 85 in 1968, and the Education Development Centre in Boston with a total staff of over 400. These two centres are working on a range of curriculum development, extending in the case of EDC to the assembly and construction educational materials, for example science apparatus for their elementary science programmes. The Center for Urban Education contracts to carry out evaluation studies—for example, that of the More Effective School programme (Fox 1967) and of the Head Start programme in New York City (Chaplan and Platoff, 1967). It also disseminates information about educational developments through research monographs, books and a journal, *The Urban Review*.

In addition to the Research and Development Centres and the Regional Educational Laboratories network, more specialised centres have been opened. The National Laboratory in Early Childhood Education operates at Illinois University, with satellite centres at five other universities or colleges.

Some of the work at one of these centres, the Demonstration and Research Center in Early Education (DARCEE) at Peabody College, has already been described in the account of their Early Training Project. Besides running demonstration preschool centres in Nashville and in a neighbouring rural area, DARCEE works with Head Start centres in the South-eastern region, running training programmes and trying to introduce new ideas into preschool curriculum. More basic research is also being conducted into areas related the development of young children—for example, detailed descriptions of the home experience of disadvantaged children (Schoggen, 1967).

A special section of the national Clearinghouse system for documents was set up to deal specifically with the disadvantaged. This system, know as ERIC (Educational Research Information Center), assembles and abstracts unpublished educational material, papers and research report. The abstracts are published in the monthly journal, *Research in Education,* indexed by subject, author or investigator and institution, according to a set of key educational ' descriptors ' that help to trace items on a particular topic. The document itself is then available from the relevant Clearinghouse in microfiche or hard copy format. Two Clearinghouses are particularly relevant to programmes for the disadvantaged—that on the disadvantaged, based at Teachers College, New York, and that on early childhood education at the University of Illinois. Several of the Clearinghouses produce regular bulletins, which include short over-view articles of central issues and extensive bibliographies.

C. Further research

In a short study concerned mainly with educational programmes for the disadvantaged and the evaluation of such programmes, it is not possible to review much of the more basic research that has been stimulated by the growing concern for such groups. Several studies whose findings relate

to the design of particular programmes of action have been reviewed briefly in the accounts of these schemes. Inevitably there are many further studies that cannot be covered. Even by 1967, a bibliography by Booth (1967) listed more than 1,400 items concerned with the disadvantaged, and since that date perhaps as many again have been produced. Though many of these items cover programme development and evaluation, many deal with more basic research.

One major emphasis of this research has been to map the relative position of disadvantaged children on a range of cognitive abilities ; and it was on the picture that emerged from these studies that several of the experimental preschool programmes were based, often with the image of a child suffering from intellectual 'deficits' that could be remedied by an appropriate curriculum. At the same time other research began to make the relationship between the child's cognitive skills and his background experience more explicit. In particular, the communication style of the mother was isolated as an important variable in explaining the child's language performance, and related cognitive skills. More impressionistic sociological material extended knowledge about the general background experiences of the disadvantaged child and the experiences of his community in interaction with wider society. Studies such as the Coleman Report and the work of Wolf (1964) and Davé (1963) produced more information about the relative influence of a number of background, peer group, and school factors on the child's performance.

Despite this impressive array of research findings, some of which was extensively used in the more carefully designed action studies, the results of action programmes have not justified the optimism that was initially generated. Where there has been success, it has often been temporary, 'washing out' soon after the end of the programme. In some cases, researchers have blamed those more directly responsible for the action for failing to implement the programme in a way more closely related to the evidence of research. But where researchers themselves have directed programmes, such a way out is impossible. Here the response is to accept that more basic research is required before a further intervention is made into the field of action. The negative findings from action programmes have given rise to further research studies, in some cases more fundamental and far-reaching than those that have gone before. Jensen (1969 *a*) has reopened the basic questions about the genetic and environmental influences on human ability, using evidence from programmes for the disadvantaged as a starting point for his enquiry. His concern with the inherited factors in intelligence clearly makes relevant a range of genetic and biological studies not normally considered in relation to educational questions. At the other end of the scale, the increasing militancy of the black population has shown up the limited psychological framework of many intervention programmes, which have focussed on the child's intellectual deficits and their immediate correlates in the home. Less attention has been paid to the more generally depressed social and economic state of the black community, and its position in the educational system. Though factors in the home situation seem more closely correlated with educational performance when survey research studies are conducted, it may be that intervention to change the level of educational performance will bring other variables into greater prominence. Educational enrichment and attempts to improve the style of mother-child interaction may in the long term prove ineffective if the educational system

in general denies the child's worth and the occupational structure blocks his aspirations.

A research method that may help to clarify the influence of these factors is the longitudinal study, which follows a group of children through the critical periods of schooling. Several such studies have been set up, perhaps partly in response to the apparent failure of school-based programmes, indicating that further knowledge of the school experiences of the disadvantaged is required. The Educational Testing Service (1968) is currently conducting a longitudinal study of disadvantaged children between the ages of four and eight. The aim is to find out the important components of early education that are effective for cognitive, personal, and social development, and to isolate other factors that moderate the effect of these educational influences. A sample of about 2,000 four year olds is being intensively studied to give answers to some of these questions.

An interesting variant on the general longitudinal study is that conducted by Mackler (1968) ; the aim was to trace the development of successful children in ghetto schools, and to isolate factors in schooling that explained this success. From an initial study of 1,000 elementary school children, a smaller group was selected for a more intensive longitudinal study over a three year period. These included a group defined as ' successful ' both at the beginning and end of the three year period, and for comparison an average and below average group. A major finding was that the price of success was behaving ' in a school (or socially) accepted way '. Pupils who behaved appropriately in kindergarten were selected for the top first grade class ; and at higher grades there was less and less transfer from other classes to the top class. Though social behaviour and ability were closely related by teachers at all grades, they became most highly correlated at third grade, suggesting that the teachers virtually equated ability and social behaviour at this level. Above this grade the relationship between these two skill areas again diverged. But by this stage, it is argued that the potentially successful pupil had internalised the need for appropriate conforming behaviour ; he was insulated within a group of similarly selected children, and often taught by the better teachers in the school. The stability of success patterns found in the study indicates the range of influences—of parents, classmates, teachers and other adults—which continually acted to reinforce the pupil's self-image as that of a successful student. Similarly those who failed were repeatedly reminded of their position. Studies of this type—analysing the relationships within ghetto schools—indicate why many of the well-intentioned enrichment programmes have been ineffective. They have not brought about basic change in school organisation or in teacher attitudes towards disadvantaged children.

Perhaps one of the more fruitful developments for research has been in the closer links that have grown up between basic research and action in compensatory programmes. In some cases action programmes have been based in part on the theories and findings of research, and the outcomes of the action have indicated the need for further and more comprehensive research. Professor Gordon (New York Conference) suggested that a hard line should not be drawn between evaluation and basic research ; it was possible that theoretical advance could come from research involvement in action programmes as much as from pure research situations. He cited the work of Glaser and Strauss (1967) on the development of ' grounded theory '. Yet at present the disappointing results of many compensatory

projects and the growing political controversy that surrounds such action has driven many researchers back to more secure and established forms of research, where their plans are less likely to be undermined by the strikes, boycotts, disruptions, and administrative changes now a frequent feature of many urban school systems.

Even without these additional difficulties, the problems of relating evaluative research to action are formidable enough. There is undoubtedly inherent conflict between the requirements of evaluation which tries to approximate to be experimental model, and the needs of action, to be flexible in response to changing circumstances. Other research models can be adopted—for example, the technique of 'evaluation-revision'; but in research terms such models do not give the kind of clear-cut answers about programme effectiveness that research is being asked to provide.

Further analysis of the relation between action and research is required. As Professor Rein (New York Conference) pointed out, the area is that of the division between fact and value; and though there are indications that the traditional distinction between fact and value is being reexamined, the issue is an uncomfortable one for researchers as it touches on some of the basic assumptions of their discipline. Conversely, the involvement of research in action programmes can introduce an element of uncertainty into their action by indermining any traditional beliefs that educational programmes are particularly effective. Even where successful research findings are achieved, the researcher may still see his role to be that of constructing and testing rival hypotheses to explain the outcomes. For example, faced with successful results from preschool programmes which appear to derive from the curriculum, the researcher may put forward a series of alternative explanations—practice effect, familiarity with test materials, and gains in test-taking motivation rather than in cognition. The creation of such uncertainty is likely to be in conflict with the needs of the action programme to produce clear-cut results for the decision-making process to follow. A common reaction is to reject the apparently negative role that research has to offer. There is undoubtedly an important dilemma here; how should action programmes and decision-making respond to the uncertainties that research may create?

Chapter VI

SUMMARY AND CONCLUSIONS

In this review of compensatory education in the United States, we have tried to give some impression of the changing social conditions that were related to such a movement, of the variety of ideas and theories that lay behind the development of particular educational approaches, and of the range of programmes and projects that has been set up. Inevitably, it has only been possible to touch on a few of these features. The projects described represent only a small fraction of the schemes tried out, but they are in general either those that are most well known, or those which have embodied innovation of particular interest. Several items in the bibliography give access to more detailed and extensive treatment of programme content and method.

In the introduction, it was suggested that a fruitful way of examining the compensatory education movement was to view it as part of an on-going debate on educational change, with particular reference to social groups who had benefited least from previous educational developments. Each project or programme marked a point in the debate where a set of assumptions and theories had been put to the test. Yet a major problem in following these developments is the complex nature of the debate, and consequently the variety of programme designs. As Deutsch (1967 *b*) notes, no 'orthodoxy' of compensatory education has yet emerged. In fact quite the contrary has occurred. The sudden increase in resources available for such special programmes, and often the very broad guidelines about programme content, positively encouraged experimentation with a range of approaches. Both large scale programmes and small research studies were affected—a strong motive for participants being the desire to 'get into the action', and demonstrate that their group had independent solutions to offer. The risk in such a method of development is that the overall picture becomes so confused by the diversity of approach that it is hard to distinguish successful ideas and programmes. The independence of each group in promoting its own schemes prevents the necessary replication and extension of apparently successful programmes so that their effects can be assessed on a broad scale. The observer perhaps experiences what is alleged to be one of the major problems of the disadvantaged; bombarded with a mass of details about programmes, he is unable to distinguish any dominant patterns—any 'figure to ground' relationships.

We have attempted to impose a general pattern on the programmes, by distinguishing three broad strategies of change. We looked first at changes within the school, particularly the development of new curricula, and the extension of formal schooling to include younger age groups.

Secondly we examined change in the relationship between the school and its setting; and thirdly, as a subsection of the second type we outlined projects that had adopted a very different conception of the relationship between school and community than that traditionally held. The aim of this type of programme was to integrate schools racially or socially where the communities themselves were not integrated. Within these three broad strategies, we have traced the developing pattern of each. It would be wrong to claim that this is the historical sequence of development, except in so far as the initial belief of many that the problem would be quickly solved by goodwill and an injection of resources has been largely abandoned in favour of more complex solutions. We have tried, however to trace the development of ideas in each area, even though many practictioners may not be in sympathy with some of the more radical developments that we have described—for example, the movement for 'community control' of schools as a final stage in the argument about 'parental involvement' in school work.

Even with this pattern, the difficulties of making any overall assessment of compensatory education in the United States are formidable. The early optimistic expectations have not been realised. And where rigorous evaluation has been conducted, results have often been disappointing, or where significant, have not been maintained for any length of time. As the American writers Light and Smith (1970) lament, 'our ability to detect failure has out-run our power to instill success'. They attribute part of the problem to the 'make or break' method of the traditional evaluation approach, and suggest that need for 'improved development and evaluation strategies'. Others would lay most of the blame on the design of the action programmes; research evidence has been poorly used and programmes have worked within a limited frame of reference that neglects the child's wider experience outside school. And others would criticise the overall level of resources and the short time span within which measurable return was expected.

The disappointing results of compensatory programmes have raised more fundamental doubts about the influence of education in tackling the problems of poverty. Several critics have argued that the educational system alone has little independent effect as an agent of social change, and that improvements in educational facilities however radical, could never achieve the kind of objectives that were set. Even if these objectives were apparently 'educational' themselves—for example, an increase in pupil performance, the influence of other social factors far outweighed the influence of school characteristics. More fundamentally still, it has been questioned whether the observed intellectual differences between social and ethnic groups are principally determined by social factors rather than a product of genetic differences. In the face of such basic criticisms, it may well be asked whether the whole compensatory education movement has not been a series of 'paper programmes' founded on inadequate assumptions and poorly articulated theory.

We have tried to indicate where programmes have set themselves unrealistic objectives. This problem is particularly marked where vague non-educational goals are put forward—for example 'breaking the poverty cycle'; and in general, the more extensive and varied the programme, the more likely it is to have such objectives.

'Umbrella' programmes such as Head Start or Title I of the Elementary and Secondary Education Act of 1965 almost inevitably become

associated with broad objectives. The relationship between these objectives and the educational changes promoted by the programmes was never clearly thought through and as in the case of the 'poverty cycle' the theories on which such relationships were based were often very inadequate. Yet it would be wrong to dismiss compensatory education as a series of 'paper programmes' because of weaknesses at this level of theory. Clear knowledge about such relationships is inadequate on any analysis; it is perhaps only by experimenting in this way with educational change that better theory will be developed.

At a lower level, there is no doubt that several compensatory programmes have demonstrated that the findings of social research can be used to produce more effective educational experiences for disadvantaged children. Though no single panacea has been discovered and it seems unlikely that any will, a number of promising innovations have been developed and tested. If several of these were tried out on an extensive scale, it is possible that educational performance would improve and that the educational system would become more responsive to changing social needs. It is appropriate to conclude by briefly summarising some of the findings of the review, from this slightly more optimistic standpoint.

Any summary must begin by emphasising again the scale of the social changes that gave rise to compensatory education. The change is both of objective condition, and of society's changed perception of differences that had existed for a long time. The rapid polarisation in social and ethnic terms that occurred in large cities, as the rate of Negro urbanisation increased, underlined the social and economic disaparities that existed between the black and white population. The rapid shift within the cities as whites moved out to the suburbs and Negroes moved into the inner city was reflected in changing school populations. This again emphasised the differences in school performance between black and white pupils as teachers were faced with new needs. But lower school performance was only one aspect of a series of social and economic inequalities experienced by the black population, by other ethnic minorities, and to a lesser extent by lower status whites, many of whom too were 'inmigrants' to the city from depressed rural areas.

Though educational performance was only one aspect of such disparities it appeared to be an area where improvement could be made, with some hope that improvement would result in better job opportunities and thus a general reduction in inequality. Educational theory, too, was beginning to indicate ways in which basic changes in ability might be made if the right kinds of educational environment could be created. The child's early years were isolated as those in which such changes were most likely.

At the same time educational research was documenting with increasing precision the ways in which the child's experience outside the school, particularly in the home, affected his development in school. This suggested that if the school could somehow 'compensate' for these inadequate experiences, or could influence the home in such a way as to bring about change, an educational 'pay-off' might be achieved.

The Coleman Report added extensive information about the disparities in educational performance between black and white children and the factors that were most highly correlated with school performance, indicating that the effects of home background and the characteristics of fellow pupils were far more marked than variations in school or teacher quality. These

findings underlined the three general strategies of action to improve educational outcomes : improvements within the school, increased educational influence in the home, or changes in the background of follow pupils that could be achieved by altering pupil composition to include a more socially and ethnically heterogeneous group. The findings of the Coleman Report also developed the idea of ' equality of educational opportunity ' as equality of ' *outcome* ' rather than as an equal chance of *access* to educational facilities. This implied that educational provision might have to be unequal, or for there to be ' positive discrimination ' in favour of the poor, if equal outcomes—i.e. equality of educational opportunity—were to be achieved.

As we have noted in the discussion on concepts, the terms that were adopted to describe such programmes, ' compensatory education ' and ' the disadvantaged ', are vague in reference. Neither clearly indicates an underlying theory, though several critics have restricted the term ' compensatory education ' to strategies that confine change to the school curriculum. Such terms, though possibly helpful in focussing attention on the problem and eliciting funds, have at times added an element of confusion. The use of the term ' disadvantaged ' has tended to give a possible spurious unity to a group distinguished on broad social and economic criteria. This has concealed the diversity between groups, and perhaps more importantly the diversities within any group so classified, because of the considerable disjunction between social and economic characteristics at the group level and the individual characteristics of each child with which education is concerned.

Such was the context for the development of compensatory programmes. We turn now to examine briefly some of the findings in each of the broad areas of strategy. Though preschool education has not turned out to be as effective as many thought it might be, there are consistent indications that the right type of programme content will lead to a general intellectual advance. The more intensively the programme is geared to such intellectual development as language skills, the more substantial the gains that are achieved. In general, traditional preschool methods have not compared favourably with more structured programmes of intervention ; though the findings of Weikart (1970) suggest that where planning-time, resources, and teacher motivation are equalised, very similar results are achieved with different types of programme content. The overall results of large scale preschool programmes such as Head Start have been disappointing in comparison to smaller experimental projects. These differences must in part reflect the problems of mounting large scale programmes of this kind and the variety of personnel and approaches to be found in Head Start centres.

Follow-up studies of children who have attended preschools have also produced disappointing findings. In general, gains achieved are not maintained significantly for any length of time. These findings have indicated the need to look closely at whether preschool work has made a real impact on development, and suggested that programmes will have to be maintained into the elementary grades if the negative effects of later schooling are to be counteracted. The child who moves from a well staffed receptive preschool to a conventional school class with a high pupil-teacher ratio may be more at a disadvantage than one who has not been to preschool. Follow-up studies also indicated the need for even earlier intervention, such as

home visiting programmes for very young children, and as a logical extension 'parent-training' programmes for teenagers.

At school level, programmes have in general not been able to achieve the type of gains in performance seen in small preschool projects. One reason may be that changes at this level have often been 'piecemeal'. No overall change in curriculum and method has been made. The strategy of development followed by the 'Follow Through' programme, the extension of Head Start to the elementary grades, is geared to bring about this overall change, by testing a series of curricula along the lines of the experimental preschool projects. At school level there has been a lack of success with projects such as the 'More Effective School' programme which substantially increased the traditional resources of the school by providing extra teachers.

At higher levels, programmes which have provided college entrance courses for the disadvantaged have at times been successful in achieving substantial advances in academic skills.

Many programmes have avoided getting involved with the existing teaching force in schools, by working outside school or by appointing new staff specifically for the project. Compensatory programmes have uncovered a number of ways in which the teaching staff can be supplemented and reinforced. The use of aides or 'para-professionals', often from depressed areas themselves, is common both at preschool and school level. Students in training have also been involved in several projects. An alternative method of increasing the 'teaching force' and one that strikes at the traditional distinction between 'teacher' and 'pupil' is to use one student to teach others. This can either be in the form of older children working with younger groups—for example teenage girls in preschool—or genuine peer-teaching within the same class or age-group.

The second broad strategy is to change the relationship between the school and its social setting. Here there is evidence that carefully worked-out programmes of parental involvement, as for example in the Nashville project and the Bloomingdale Family programme, can produce measurable change in parental behaviour and attitudes towards education and even produce IQ gains among the parents as well. The development of home visiting schemes, initially as an adjunct to preschool work, but later as an alternative strategy, has also produced promising results. The 'diffusion effect' noted in the Nashville 'Early Training Project', whereby younger siblings of the children in the project and other children in the community appeared to progress more rapidly, may well indicate an effect of home visiting. Where the mother is closely involved in the teaching programme of such projects, it is possible that the long term impact can be maintained by periodic visits. This suggests an alternative strategy to concentrating resources in the formal educational system, and deploying them instead to make a direct impact on the child's educational experience in the home. Dr. Shaefer (New York Conference) argued that such programmes may well be more effective for change than those based within the school system.

An alternative approach to the objective of increasing educational influences within the home is to change school organisation and control in such a way that the school is more open to the influence of the community. As the school becomes more involved in the community through the development of community study curricula and programmes of parental invol-

vement, further change may occur. Several projects, notably the Head Start group in Mississippi, the CDGM, have argued that schools or preschool centres have to be concerned with general community progress rather than education alone. The idea of the 'community school' as an agency concerned with general community welfare and development is closely related to this approach, and community-oriented curricula for such schools have sometimes emphasised the need to inform students how change in their community can be achieved.

At a more radical stage, these developing links with the community are used as evidence that formal control over the school should be vested in the community rather than in a central authority. This is the strategy of 'community control'. As yet the situation that results from such a change-over in control is far from clear. Schools have become the centres of conflicting groups of parents, teachers and the administration. In the past, schools have been carefully insulated from such social and political pressures. The traditional expectation held by both teachers and parents of an orderly learning environment does not respond well to the unpredictable and sudden changes that many 'community schools' or 'community controlled' schools have experienced. Such changes in the organisation and control of schools are more closely connected with wider issues of political power than they are with programmes to improve the outcomes of schooling for disadvantaged groups. Many, however, argue that until such groups are given more control over institutions that shape their lives, programmes of educational remediation will continue to be ineffective.

Schemes to integrate schools or school systems entail a very different conception of the relationship between school and community; here 'community' represents a much wider cross section of society than that normally found in the catchment area of a single urban school. To achieve this balanced group within schools, children have to be bussed to other areas; catchments rezoned, or massive new school campus built. The belief that the performance of disadvantaged children will improve once they join an integrated school has been a powerful factor in developing such programmes. But the evidence of research studies is not clear, and where pupil performance has increased it may be that the new schools to which they are bussed are of generally higher quality than those in the inner city. Many integration programmes have only been able to move a token number of pupils, and there are few schemes as comprehensive as that of Berkeley, California, which planned to integrate all its elementary schools. Other areas are planning more comprehensive schemes, involving 'educational park' complexes large enough to draw from integrated catchment areas; though the more residential segregation there is, the larger such institutions have to be.

The building of new institutions has been another response to the problems of getting schools to adopt innovations. 'Model' or 'demonstration' schools are a way of showing the feasibility and effectiveness of new ideas at a relatively local level. Such development can apply equally to curriculum innovation and to more general changes in school organisation and control. The independent 'free' schools demonstrate that members of minority groups can run schools effectively. Another type of 'model school' emphasises the working of new curriculum methods. But with both these approaches, the problem of getting the innovation accepted by other schools remains. Perhaps more effective is the 'model district' programme, where

a small team works with a number of schools, introducing the teachers to new methods and providing the necessary materials, workshop sessions, and classroom support, so that teachers can experiment in their own schools.

The involvement of research and evaluation in action programmes has often been an uncomfortable experience for both groups. Each exposes vulnerable positions in the other ; the methods of research introduce uncertainty into action, and undermine the needs of the decision-making process for clear results. And involvement in action by research may challenge the basic distinction between fact and value that underlies research procedure. Many of the requirements of research for control over the development of the action, and for the systematic allocation of children to one group or another cannot be met in large scale action programmes, for social and political reasons. Though small scale studies, for example at preschool level, have managed to approximate to experimental design, and have been able to produce relatively clear results, there is need for more information about the reasons for such changes—for the study of ' process variables '. In the context of large scale programmes, there are strong arguments that overall evaluation of the final outcomes has in many cases been premature. There is first a need for more detailed examination of whether the programme has been adequately implemented, and for research strategies that identify successful elements in the programme. Overall evaluation of final outcomes tends to encourage an over-simplified response to programmes in sharply defined success or failure terms. Evaluation of educational programmes for the disadvantaged has increased the demand on research resources, and new research and evaluation centres have been created. Basic research has also been stimulated, and a hopeful development has been the increasing interaction between basic research findings and the evaluation and development of action programmes.

To round off this summary of the more positive findings of the review, we should like to draw attention to a series of themes that underlie the planning and design of both action and research in a number of programmes. The first concerns the length of time a child should ideally take part in special programmes. One response to the apparent failure of short term intervention projects has been to press for more total programmes : for the child to join almost at birth, and ideally to be in some form of residential care. The aim is to reduce the effects of other influences on the child. He is placed in a ' controlled environment ' for as long as possible. A different response to the problem of ineffective short-term programmes is to try to change what are dynamic forces in the child's experience ; to ' muliply ' the effects of the programme. A home visiting strategy that seeks to improve the educational content of interaction between mother and child in the home is of this kind. Programme effects may be maintained by the mother with a relatively low level of support from the home visitor.

Similar differences of standpoint can be seen in the methods of introducing new curricula to teachers. One approach is to work out a complete curriculum package, where the teacher only has to monitor its operation in the classroom. A different method seeks to involve teachers in the development of the curriculum and the necessary raw materials, accepting that each teacher will introduce her own variations. These differences of approach are reflected in the methods of organisation set up to stimulate wider innovation. The ' model school ' approach may be similar to the development of a ' package ' ; teachers in effect are asked whether they wish to adopt

the approach or not. In the 'model district' strategy there is an attempt to build a curriculum with teacher involvement at the start; there is no precise 'model' or 'package', but a series of ideas and guidelines within which teachers are free to develop their own approaches.

In research strategy, too, similar distinctions can be seen. A major requirement of 'experimental' procedures is that action develops in a predictable way; such an approach is most closely in accord with the development of curriculum 'packages'. Yet the experience of using such methods in evaluation has indicated the need for more information about how the programme actually develops. This is not always in accordance with the predicted course. Teachers, for example, may use kits or 'curriculum packages' in quite different ways and consequently with different results. This possibility underlines the need for alternative research strategies to aid in programme development and to identify successful programme elements. Such research strategies are likely to be more amenable to the more 'organic' methods of curriculum development outlined above.

This summary has deliberately selected the more optimistic outcomes of compensatory education programmes. It would have been equally possible to sketch in a more depressing picture. The developments in compensatory education we have covered occurred at a time of worsening race relations in American cities, and it has been suggested that compensatory education has accelerated this process. The schools and the school system, perhaps because of their 'visibility' and presence in the neighbourhood, have become centres of conflict. For this reason, it is no longer possible to revert to earlier methods of compensatory education in some districts. Black militancy may try to block programmes aimed at the cognitive 'deficits' of the disadvantaged child, and may oppose schemes which seek to bus black children to white suburbs. Many researchers, too, have found it impossible to operate under such turbulent conditions, and have retired to university-based work.

It is now possible to return to some of the basic questions posed at the beginning of this chapter. Though there have been some 'paper programmes', it would be wrong to use this description to cover 'compensatory education' in general. As we have tried to show in the summary, a range of positive findings can be listed. If this is felt to be a small return for the resources invested, it would be interesting in comparison to assess the 'return' from the general educational budget. Despite the apparently large sums devoted to compensatory programmes, these new resources are still a fraction of the total. Even such substantial programmes at Title I made only a small impact on the amount spent per head in disadvantaged schools. Yet the range of innovations in curriculum and school organisation promoted by compensatory education must be hard to parallel in any comparable period of time.

Compensatory education has not produced answers to such questions as the relative importance of genetic or environmental factors in intelligence, or the relationship between education and the occupational structure. It is interesting that the genetic-environmental controversy has been re-opened at a time when experimental preschool programmes, part of 'compensatory education', have conclusively demonstrated that improvements in intelligence test scores can be achieved and maintained over a two year period or more. Attempts to improve the educational experience and qualifications of disadvantaged groups may well help to clarify the complex relationship

between education and the occupational structure, particularly if research and evaluation are closely implicated in such action studies.

To simplify the development of compensatory education, the movement began with what appeared to be a simple educational problem—the fact that certain social groups on average had a lower level of educational performance. Attempts to solve that problem have been forced to go further and further outside the educational system, as the ramifications of the initial problem are uncovered. In this process, the most basic questions are raised about the nature of social organisation and in particular the reasons why lower social status should be associated with lower educational performance. These developments indicate that a purely educational response to the initial problem is unlikely to be successful. Action programmes have tended to follow this pattern, first seeking to introduce change in the child's experience in the formal school setting, and then increasingly to expand their approach, so that larger areas of the child's experience are affected. Educational under-achievement is seen to be merely one manifestation of a number of social and economic disparities experienced by disadvantaged groups. The long term solution must be a comprehensive range of programmes that strike at these political, social and economic inequalities. Many participants at the New York Conference, while recognising the need for comprehensive programmes of this kind, underlined the important role that educational programmes would have to play. It is possible, too, that educational programmes may make considerable impact on the political awakening of disadvantaged groups, a process that certainly accompanied the development of compensatory education in the United States. It could be argued that this political awakening is the most effective means of ensuring that gross inequalities between social and ethnic groups are eradicated.

APPENDICES

Appendix 1

PARTICIPANTS AT THE CONFERENCE ON THE EDUCATION OF THE DISADVANTAGED, SPONSORED BY THE OECD AND HELD AT THE FORD FOUNDATION, NEW YORK, 13-15 JANUARY, 1969

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Appendix II

DETAILS OF VISITS MADE TO AMERICAN PROJECTS IN COMPENSATORY EDUCATION, 1969

Institute for Community Services,
Head Start Centres,
Holly Springs, Mississippi

Demonstration and Research Center for Early Education,
George Peabody College for Teachers,
Nashville, Tennessee

Individually Prescribed Instruction (IPI) Project,
Oakleaf School, Pittsburgh

Primary Education Project,
Learning Research and Development Center,
University of Pittsburgh

Pennsylvania Advancement School,
Philadelphia

Parkway Project,
Philadelphia

Film-Media Center,
Philadelphia

East Harlem Block School,
New York City

Institute for Developmental Studies,
New York City

Dr Marion Blank

Preschool Centres,
Albert Einstein College of Medicine,
New York City

Center for Urban Education,
New York City

Urban Education Cooperative,
New York City

ERIC Center for the Disadvantaged,
Teachers College, Columbia,
New York

More Effective School Program,
New York

College Bound Program,
New York

'Nimnicht' Early Education Programme,
Greensboro,
North Carolina

Frank Porter Graham Child Development Center,
Chapel Hill,
North Carolina

Perry Preschool Center,
Ypsilanti,
Michigan

Pilot Community Program,
Washington DC

Early Childhood Education and Resarch.
Office of Education,
Washington DC

Adams-Morgan Community School,
Washington DC

Project Unique,
World of Inquiry School,
Rochester,
New York

Highland Park Free School,
Roxbury, Boston

Metropolitan Council for Educational Opportunity (METCO)
Roxbury, Boston

The Roxbury Multi-Service Centre,
Roxbury, Boston

Pathways Project,
Cambridge, Mass

Head Start Program,
Action for Boston Community Development,
Boston

Educational Development Center,
Newton, Mass

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